

## A Grammar of Dazaga

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# A Grammar of Dazaga

*By*

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*To Dad and Mom*

*This study is largely the fruit of your many years of hard work.*

*'Others have done the hard work,  
and [I] have reaped the benefits of their labor.'*

*John 4:38 (NIV)*





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## Preface and Acknowledgements

The present work is the first substantial work on the language of the Daza people—Dazaga—to be published in more than half a century. As such, it offers current data and benefits from updated linguistic methodology and theory (for more details, see Chapter 1). The scope of the study is the whole of the Dazaga language which means that depth of analysis is sometimes limited in a work as brief as the present one. However, my goal in this work is not to produce an exhaustive reference grammar of Dazaga—though I hope that such a work will be produced in the future—but to produce an introductory and preliminary work that might serve as the basis and the motivation for further research. While I think my analysis will prove informative to other linguists (especially those studying Saharan languages), perhaps the most significant contribution of this book is the data which can serve as the basis for the work of other linguists. I hope as well that this work will be of practical use to native speakers of Dazaga and to non-linguists in need of assistance in learning Dazaga.

This study is the result of several years of my own work, but would not have been possible without the help and support of many others.

My thanks go first of all to you, Dad and Mom. You gladly provided me with your data from your many years of work with Dazaga, and have been enthusiastic supporters of my research. Dad, I can't adequately express how much I appreciate the countless hours you've fit into your already-too-busy schedule to answer questions, offer suggestions, and comment on each chapter of this book.

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Je veux également remercier M. El Hadj Oumar Mamane pour son aide généreuse et sa patience. Comme un locuteur natif du dialecte Keshirda de Dazaga, son aide et ses intuitions ont été très importantes pour mes recherches.

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Friends at GIAL helped and encouraged me in my work. Rachel Jamison provided me with her bibliography on light verb constructions. Joy Sanders gave me her phonetician's judgment of the rhotic segments in Dazaga. Marlin Leaders helped me with various aspects of using FLE<sub>x</sub> (FieldWorks Language Explorer) and Phonology Assistant. The GIAL librarians—Ferne Weimer, Carole Unseth, Dorothy Buice, and Robert Sivingy—have willingly helped me with various aspects of my research. I particularly appreciate Carole Unseth's help with obtaining various resources through InterLibrary Loan.

Miriam, my dear wife, you were patient with me through my many long days in class and in the library at GIAL and, more recently, as I spent many week-day evenings and Saturdays updating and editing my thesis for publication in the present form. Thanks for your hard work and your support and encouragement. I love you. Titus, Esther, and Katie, thanks for always being willing to

help give me a break from my work and for drawing my attention back to some of the more important things in life.

Finally, I give thanks to God for his kind providence in granting me the opportunity to research, write, and publish this book. 'Now to him who is able to keep [us] from stumbling and to present [us] blameless before the presence of his glory with great joy, to the only God, our Savior, through Jesus Christ our Lord, be glory, majesty, dominion, and authority, before all time and now and forever. Amen'. (Jude 24–25; ESV)

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# List of Abbreviations

*	ungrammatical	L	low tone
-	affix boundary	LOC	locative
=	clitic boundary	LV	light verb
( )	optional	LVC	light verb construction
(*)	parenthetical material is ungrammatical	NEG	negator
* ( )	omission of parenthetical material is ungrammatical	NP	noun phrase
1	first person	NP <sub>mat</sub>	matrix noun phrase
2	second person	NP <sub>rel</sub>	relativized noun phrase
3	third person	NSPC	non-specific
ACC	accusative	OBJ	object
ADJZ	adjectivizer	OPT	optative
AJCT	adjunct	P	plural
AP	adjective phrase	p.c.	personal communication
C	consonant	POSS	possessive
CAUS.LV	causative light verb	PROG	progressive
CNTG	contingent	PSM	possessum
COORD	coordinator	PSR	possessor
DAT	dative	REC	recipient
DET	determiner	REFL	reflexive
DIM	diminutive	REL	relativizer
EP	epenthetic	RHET	rhetorical question marker
ERG	ergative	S	singular
GEN	genitive	SOV	subject-object-verb
GEN.S	genitive singular	SUB	subordinator
H	high tone	SUBJ	subject
HORT	hortative	SVC	serial verb construction
IMV	imperative	THM	theme
INDF	indefinite	V	vowel
INTS	intensive	X-COMP	complement (clause/phrase)
IPFV	imperfective	YNQ	yes/no question



# Introduction

## 1.1 The Daza People and the Dazaga Language

Dazaga (ISO 639–3: dzg) is a language of eastern Niger and northern Chad, spoken by the Daza people (the *-ga* suffix in *Dazaga* indicates ‘language of’). It has about 380,000 native speakers (Lewis et al. 2015a), mostly in Chad (about 330,000 speakers), but also in Niger (the remaining 50,000 speakers).

The Daza, and their language, Dazaga, are generally referred to by outsiders as Tubu (e.g. Lukas 1953) or Toubou. The Daza are normally referred to as Goran by the non-Daza people in Chad (originally by Arabs specifically; cf. Jourdan (1935:1) and Lukas (1953:xiv)). The name Tubu/Toubou is also used in the literature to refer collectively to the Daza and the Teda (e.g. Lukas 1953; Baroin 1997), a usage of the term that reportedly (Wolff 2011:173; cf. Lukas 1953:xv) began with Nachtigal (1879–1889).<sup>1</sup> In Niger, people use the name Tubu to include Teda and Daza. In Chad, Tubu refers only to the Teda (Kevin Walters, p.c.). The term Tubu is usually considered to derive etymologically from the Teda word *tu* ‘mountain’ and the Kanuri suffix *-bu* ‘people from’, and probably refers more properly to the Teda (Kevin Walters, p.c.).<sup>2</sup> Despite the collective use of the term Tubu, the Daza and Teda consider themselves distinct, though closely related, people.

Dazaga is normally considered to be a Nilo-Saharan language (though classified in Jourdan (1935:1) as ‘nilo-tchadien’), and a member of the immediate and small Nilo-Saharan subgroup Saharan (Greenberg 1970:130; Bender 1991; Cyffer 2000). However, this classification has not been uncontested, and Mukarovsky (1981) and Petráček (1989) argue that Saharan is more closely related to the Afroasiatic than to the Nilo-Saharan macrophylum (cf. Cyffer 1991:79).<sup>3</sup> In this study, I assume the dominant classification of Saharan as a Nilo-Saharan language and do not further address issues of the superordinate classification of

1 Barth mentions the term Tubu in his 1862 work, but does not use the term to include the Daza. Rather, he notes that ‘Teda is the only right indigenous form of what is generally called Tubu or Tebu’ (1862:lxvii).

2 Interestingly, Wolff (2011:174) says that Tubu refers more properly to the Daza.

3 Cyffer (1996:54) notes that, prior to Greenberg’s (1963) classification of Saharan as a subgroup of the Nilo-Saharan macrophylum, the Saharan language group was generally considered to be an isolated group.

the Saharan language group. Saharan comprises nine languages (cf. Figure 1.1), which are generally broken down into two further subgroups, Eastern Saharan and Western Saharan (Cyffer 2000; also Lewis et al. 2015b).

Eastern Saharan contains only two languages, Berti (cf. Petráček 1965, 1966, 1987, 1988) and Beria (also called Zaghawa; cf. Fadoul (n.d.); Tubiana (1963); Cyffer (1991); Wolfe (2001); Jakobi & Crass (2004); Jakobi (2006, 2011); Wolfe & Adam (2015)), the former of which is now extinct. Western Saharan is further subcategorized into Kanuri and Tebu.<sup>4</sup> The Kanuri branch includes Kanembu and Kanuri proper (Bilma, Manga, Tumari, and Central) (cf. Koelle (1854); Lukas (1937); Hutchison (1981); Cyffer (1997, 1998a, 2007); Fannami & Mu'azu (2011)).<sup>5</sup> Tebu comprises Tedaga and Dazaga.

Tedaga and Dazaga have generally been treated together in descriptive work (e.g. LeCoeur & LeCoeur 1956; Lukas 1953), even though they are distinct (but closely related) languages (cf. Lukas 1937:x; LeCoeur & LeCoeur 1956:16). There is lexical and grammatical evidence for this distinction (Kevin Walters, p.c.; cf. also Awagana (2011)), as well as a definite distinction in the minds of the speakers of Tedaga and Dazaga (e.g. speakers of Dazaga clearly distinguish their language from that of the Teda people, but do not further distinguish languages among the clans of the Daza people, even when there are notable dialectal

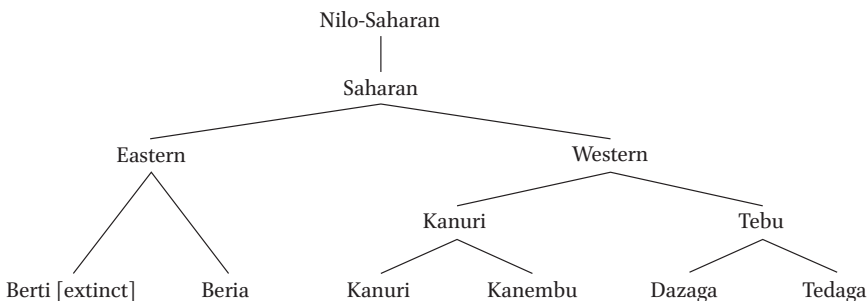


FIGURE 1.1 Genetic affiliations of Dazaga.

- 4 The origin of the term Tebu is unclear. Its use in academic work seems to be restricted to discussions of the internal structure of the Saharan language group, where it is used as a hyperonym for Tedaga and Dazaga. The term is used, however, of some of the Teda living in Libya (Mark Ortman, p.c.).
- 5 Bilma, Manga, Tumari, and Central are the only four Kanuri dialects listed by the Ethnologue (Lewis et al. 2015c). However, a more detailed breakdown has been proposed by Bulakarima (1997:71), recognizing at least the following six major dialects of Kanuri (with additional sub-dialects of Yerwa and Mowar): Bilma, Manga, Suwurti, Yerwa, Dagera, and Mowar. See also Löhr (1997), Jarrett (1988), and Hutchison (1981:4–6).

differences). Though data is sometimes specified in the literature as Dazaga or Tedaga, this mixing of two distinct languages makes it potentially difficult to determine from the literature what linguistic facts characterize Dazaga, specifically.

The Daza live in eastern Niger and west-central Chad. The closely related Teda people live in north-eastern Niger, northern Chad, and southern Libya. Figure 1.2 shows the approximate language areas of these two people groups.

Traditionally, the Daza were nomads of the Sahara desert, with large herds of cattle and camels (and sometimes other animals, such as sheep, goats, and donkeys), who moved about in search of suitable lands for their livestock. More recent climate and habitat changes have made it difficult for the Daza to maintain herds of cattle. The Daza would often raid neighboring people groups, including raids on the annual Touareg salt caravans (Baroin 1997:15–16). As a result, the Daza did, and still do, control much of the eastern Sahara.

Extreme droughts in the 1970s and 1980s caused some Daza to relinquish their nomadic lifestyle and to settle in towns such as N'guigmi and Faya-Largeau.

There are several clans that comprise the Daza people, each with its own dialect. I am aware of no recent published study of the different clans and

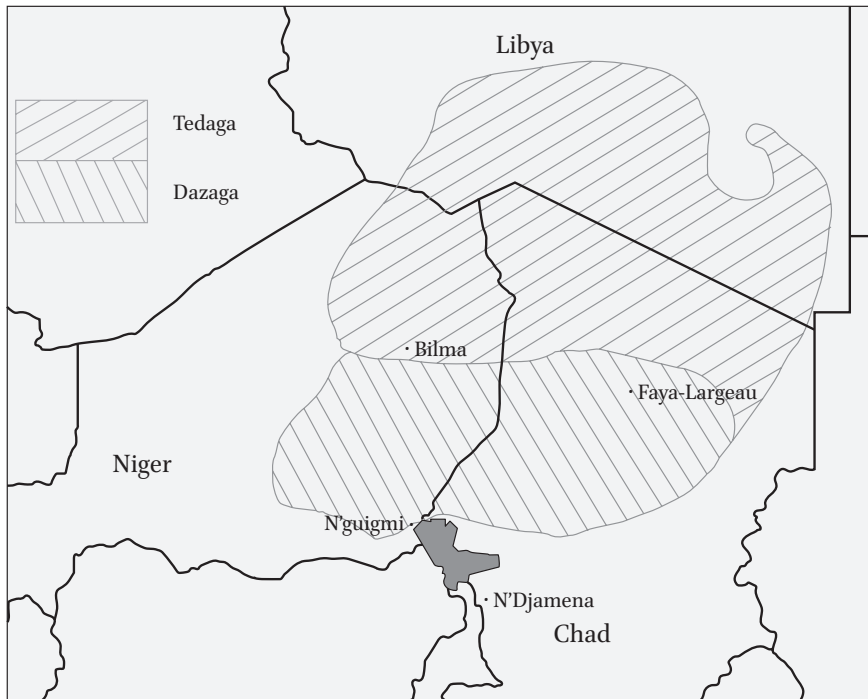


FIGURE 1.2 Map of Dazaga and Tedaga speech areas.

dialects of Dazaga, and my claims here come primarily from personal experience and from correspondence with Kevin Walters. The *kèèrdé* or Keshirda (also Kashirda; cf. Lukas 1953:xv) clan lives primarily in the *kèrí* region of Niger, from which their name likely derives. This region stretches from Tasker to N'gourti, to the north of N'guigmi. The Keshirda dialect is the focus of the present study.

Other clans include the Sagarda who live in the area south of Bilma, to the north of the Keshirda clan. The Wandala clan lives north of Lake Chad (cf. Lukas' *Worda* (Lukas 1953:iii)).<sup>6</sup> The Kreda live primarily in the Bahr el Gazel region of Chad (cf. Lukas 1953:iii), to the east of the Wandala. The Duuza are the northwestern most clan, living in the region to the north of the Kreda, toward Faya-Largeau. All these clans consider themselves to be part of the Daza ethnic group. Lukas (1953:xv) lists additional clans (*Stämme*) who are part of the Daza people, but it is difficult to determine whether these are clans distinct from the above groups or are families and other sub-groups within the primary clans. Nevertheless, all these groups consider themselves to be part of the Daza people (or *Dazagada* 'speakers of Dazaga'), and all speak Dazaga (Kevin Walters, p.c.).

The Azza are a blacksmith class associated with the Daza (cf. Tubiana 2008). They speak Dazaga, but their variety of speech is considered inferior by the Daza speakers of Dazaga, and is referred to as Azzanga. The term Azzanga is also sometimes used by Daza people for Dazaga spoken by other clans of Daza speakers of Dazaga.

## 1.2 Objectives and Methodology of the Present Study

As mentioned above, Dazaga and Tedaga are often treated together in descriptive work (e.g. Lukas 1953; LeCoeur & LeCoeur 1956). Additionally, the primary works on Dazaga, which are the only attempts at more or less comprehensive treatments of the Dazaga language, range in age (at the time of this writing) from eighty years old (Jourdan 1935) to about sixty years old (LeCoeur & LeCoeur 1956; Lukas 1953). Thus, these descriptive works predate and were not able to benefit from the major advances in syntactic and typological studies of the latter half of the twentieth century and the beginning of the twenty-first century.

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6 This clan should not be confused with the Wandala people and language described by Barth (1862) and, more recently, by Frajzyngier (2012).

My goal in the present study, then, is threefold. First, I aim to describe the state of the Dazaga language in the last couple of decades. Second, I aim to narrow the focus of my study to Dazaga (excluding Tedaga), and to the Keshirda dialect, specifically. The choice of this dialect is based primarily on pragmatic considerations: the already-collected data available to me, the best language consultant available to work with me, and the Dazaga with which I had previously been acquainted were all from the Keshirda dialect. This more narrow focus also allows for better control of the data and fewer variables than would a multi-dialect study. Third, I aim to describe the Dazaga language in the terms and categories of modern linguistic description. Though I use modern linguistic terminology and categories, my approach in this book is primarily descriptive and typological, rather than theoretical. My main theoretical influences are generative phonology and grammar, with some exposure to Lexical-Functional Grammar and, for phonology, Optimality Theory. However, I do not employ theory-specific formalism in my description and analysis.

In order to achieve my three stated aims, I adopt the following methodology in this book. First, in order to provide an up-to-date description of Dazaga, I base my description and analysis on data gathered in the past few decades. Much of the data comes from a FLE<sub>x</sub> (Fieldworks Language Explorer) database of Keshirda Dazaga provided to me by Kevin Walters. This data was collected by Kevin Walters, primarily during the 1990s and early 2000s, in N'guigmi (Niger) and the surrounding area. Some of the data for verb paradigms and most of the data for my syntactic analysis were gathered in 2014 and 2015 from e-mail correspondence with my language consultant, Mamane El Hadj Oumar, a native speaker of the Keshirda dialect. Tone data for example sentences and some data for syntactic analysis were provided in person by Mamane El Hadj Oumar during a trip I made to Niger in February 2015.

Second, by basing my analysis on the data gathered by Kevin Walters and my own data provided by Mamane El Hadj Oumar, I ensure that the data underlying this book are all from the Keshirda dialect of Dazaga.

Thirdly, in order to provide a description of Dazaga useful to the modern linguist, I use the terminology and categories of recent typological work, and have also extensively cross-referenced work on related Saharan languages (cf. Chapter 2).

### 1.3 Typological Sketch of Dazaga

Dazaga has twenty consonant phonemes (of interest: four nasal phonemes, no /p/ phoneme), and nine vowel phonemes. Vowels exhibit tongue root harmony

in polysyllabic words, such that all the vowels in a word (other than the [+low] phoneme /a/) will either be [+ATR] or [-ATR], but not a mixture of both.<sup>7</sup> Suffixes and enclitics assimilate to the [ATR] value of the word to which they attach (no prefixes contain underlying vowels). Dazaga has phonemic tone with phonemic high tone and default low tone, patterning in a pitch-accent system. Tone functions to distinguish both lexical and grammatical differences. Dazaga displays a considerable range of morphophonemic processes in both noun and verb morphology (esp. various kinds of assimilation), which can make it difficult for an outsider to confidently decipher the morphology.<sup>8</sup>

Dazaga is a fairly rigidly SOV language; except for very rare exceptions, no material follows the verb, and the S constituent follows the O constituent primarily in what are probably focus constructions. As expected with such a language (Greenberg 1966:79, Univ. 4), postpositions, rather than prepositions, are used in Dazaga. Interestingly, however, though Dazaga is strongly SOV, genitives follow the head noun (contra Greenberg 1966:78, Univ. 2). But, as predicted (Greenberg 1966:79, Univ. 5) by the violation of Greenberg's Universal 2, head nouns in Dazaga also precede any other modifiers (including determiners, possessives, demonstratives, adjectives, and relative clauses).

Concerning morphology, Aikhenvald (2007:3–8) summarizes two parameters that are useful in characterizing a given language (cf. Haspelmath 2002:4–6; Matthews 1974:17). The first has to do with the transparency of morphological boundaries, and distinguishes languages as isolating, agglutinating, or fusional. The second morphological parameter has to do with the internal complexity of (grammatical) words. It divides languages into analytic, synthetic, and polysynthetic. Assuming Aikhenvald's definition of these parameters and terms, Dazaga can be characterized as an agglutinating synthetic language. Like other Saharan languages, its morpheme boundaries are generally clearcut (cf. e.g. Cyffer 2007; Jakobi 2011), and many grammatical words (nouns, pronouns, adjectives, and especially verbs) contain more than one morpheme, but not more than six (cf. Chapter 5).<sup>9</sup>

Dazaga has minimal inflectional morphology on nouns and adjectives. Singular nouns or adjectives are unmarked, while the plural forms take the suffix *-a*. Adjectives agree in number with the nouns they modify. Grammatical

7 Hulst & Weijer (1995:511) note that tongue root harmony may well be an areal feature of Africa.

8 Cf. Bryan (1971:231): 'In all the [East Saharan] languages sound change tends to obscure the [verbal affixes]'.

9 Jakobi (2011:87) similarly labels Beria an 'agglutinative' language, but also as 'polysynthetic' (2006:131) instead of 'synthetic'.



gender is not marked in any way in the language, and the specification of biological gender requires the use of separate lexical items for ‘male’ and ‘female’. There are four enclitics that mark ergative (=ì), accusative (=gà), genitive (=ɲà, =ò, =à), and dative case (=rò). The ergative and accusative morphemes are optional, depending on various semantic, pragmatic, and possibly discourse factors. Grammatical relations are usually clear simply based on word order (cf. Jourdan 1935:1). The morpheme *-ré* functions as a derivational suffix, deriving adjectives from nouns and verbs.

Verbs are morphologically the most complex part of speech in Dazaga. Verbal morphology includes subject and object agreement markers (prefixes or a mixture of prefixes and suffixes, depending on the verb), a floating plural marker, aspect suffixes, mood suffixes, and a negative suffix. Verbs include both simple verbs (a closed class) and light verb constructions (which comprise the majority of verbs). The verb system shows split-intransitivity, with some intransitives marking their subjects like the subjects of transitive verbs and some intransitives marking their subjects like the objects of transitive verbs. The basic, unmarked form of the verb is the perfective aspect, and suffixes are used to indicate imperfective and progressive aspects. The plural marker in verbs is a separate morpheme from the person agreement markers, and the encoded plurality can be understood of the object or the subject or of both the object and subject.

Intransitive clauses always have *SV* order, and transitive clauses are almost always *SOV* order. Adverbial clauses, especially temporal or locative clauses, are often fronted to the sentence-initial position. In ditransitive clauses, the recipient tends to occur closer to the verb than does the theme. When one of the objects of a ditransitive clause is first or second person, it will be indexed on the verb with object agreement. If both objects are first or second person or both third person, the object marker agrees with the person of the recipient as primary object.

Non-verbal existential clauses use the existential predicate *fíí* ‘to be, exist’, including for locative existentials. When an existential clause is negated, the negative existential predicate *bèí* ‘to not be’ is used. The negator *fíí* is used to negate non-existential non-verbal clauses. Negation is marked on indicative verbs by a negative suffix, *-ní* ‘NEG’, which is also used for prohibitions or ‘negative imperatives’. Double negation is common in Dazaga, always as a combination of one of the negation morphemes mentioned above with another negative morpheme such as *gúrò* ‘unable to’, *ínníná* ‘nothing’, or *dǝ́úkùr* ‘never’.

Content questions are identified by the use of question words, such as *pàá* ‘who’, *ínní* ‘what’, *kínná* ‘when’, *kòó* ‘where’, and *ínà* ‘why’. Question words occur *in situ* or in an immediately preverbal position. Yes-no questions are marked

by a special morpheme, the yes-no enclitic =*rà*, which occurs clause finally, immediately following the main verb.

The bisyndetic enclitic coordinator =*jè* ‘and’ is used for phrasal coordination, and is repeated with each coordinand in multiple coordination. The coordinator *wàllá* ‘or’ is used for both phrasal and clausal disjunction. For clausal coordination, the coordinator *ní* ‘and’, rather than =*jè* ‘and’, is used. The coordinator *fíírò* ‘but’ is used for adversative clausal coordination; adversative phrasal coordination is ungrammatical.

Relative clauses in Dazaga are postnominal, and all levels of the Accessibility Hierarchy (Keenan & Comrie 1977) can be relativized, from subject to possessor. Relativization may be achieved by either the gap strategy or pronoun retention for any relativized noun phrase. Relative clauses end either with the clitic determiner =*mà* (or one of its more frequent allomorphs) or with the relativizer =*ɲà*.

Adverbial clauses in Dazaga (especially time, manner, and purpose) are usually formed by a clause ending with the subordinator =*rò*. Reason clauses are formed with a postposed subordinator *d̥ʒɪŋkàllò* ‘because’. The contingent mood enclitic =*ɔ̃* can also be used for logically or temporally subordinate (contingent) clauses.

Causative clauses are formed from simple verbs by means of biclausal periphrastic constructions. Causative light verb constructions, which are monoclausal, use a special causative light verb in lieu of the non-causative light verb *n* ‘say’. Causatives from simple verbs can also be formed using a serial verb construction.

Serial verb constructions always include only two verbs. Mood and aspect are obligatorily marked on the second, and only the second, verb in a serial verb construction. Serial verb constructions are used to indicate beneficiaries, to show purpose, and to form causative constructions, among other uses.

#### 1.4 Explanation of Certain Conventions

A few conventions used in this study warrant explanation. First, because tone is marked above vowels, I have marked nasalization with a tilde under the nasalized vowel (against IPA convention), rather than over it, to avoid the conjunction of too many diacritics. This should not be misread as creaky voice, which is not exhibited in Dazaga.

Second, in example sentences, I have glossed the subject agreement markers only with numbers corresponding to the number of the person (first, second,

or third), such as '3'. In contrast, object agreement suffixes are glossed with the number of the person as well as an abbreviation of 'object', such as '1.OBJ'.

Third, due to morphophonemics which sometimes obscure the morpheme boundaries, I have frequently given a second transcription line in example sentences with the underlying forms of the morphemes.

Fourth, while most of the example sentences have only English free translations, some have both English and French, where I deemed the French helpful or relevant to the discussion or description. For the data in the appendix I have included both English and French translations where already available to me from my data. In the other cases, I have simply given my (or someone else's) English translation of the Dazaga. English quotations from French works are my own translations. English quotations from Lukas (1953) are from an (unofficial, unpublished) translation into English graciously (and anonymously) provided by a member of Wycliffe Associates UK.

## Literature Review

In this chapter, I provide a brief review of previously produced (but not always published) studies of Dazaga. Abdoulaye (1985:2) notes that the three primary linguistic works that have been written about Dazaga are Jourdan (1935), Lukas (1953), and LeCoeur & LeCoeur (1956), and, thirty years later, this is still the case. Each of these major works attempts to provide a description of the language as a whole. Some work of lesser scope was produced in the decades preceding and following these major studies (cf. Lukas 1953:iii–v; Wolff 2011:173–174). I survey the literature in more or less chronological order.

### 2.1 Early Minor Works

Lukas (1953:iv) reports that Gerhard Rohlfs (in the 1860s) compiled some vocabulary lists of the ‘northern dialect’ (*Norddialekt*), by which Lukas is probably referring to Tedaga. In 1862, as part of a more general work on central African vocabularies, Heinrich Barth published some word lists and a brief grammar overview of ‘Tubu’ (Barth 1862). In the 1870s, Gustav Nachtigal collected vocabulary lists from the Tibesti region of northern Chad, which would have almost certainly represented Tedaga, rather than Dazaga. These lists were never published, but were made available to Lukas personally (1953:iii). About the same time, Leo Reinisch published his *Der einheitliche Ursprung der Sprachen der alten Welt* (Reinisch 1873), arguing for Tedaga as the source of the languages of the old world.<sup>1</sup> Some years later, in 1912, Henri Carbou published his *La région du Tchad et du Oudai: études ethnographiques, dialecte Toubou* (Carbou 1912). This work included an *Étude pratique de la langue Toubou*, a collection of vocabulary lists and short sentences.

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1 Lukas (1953:iv) simply calls the language *die Tubusprache*, but Reinisch himself (1873:3) mentions that the people call themselves ‘Teda’ (*die Heimat eines Volkes welches sich selbst den namen Teda beilegt* ‘the home of a people which calls itself by the name Teda’). He states that in the west (possibly into Niger?) they are also called Tibbu, Tibbo, Tibu, or Tebo, perhaps including the Daza people.

## 2.2 The Major Works

The mid twentieth century saw great advances in the description of Dazaga, which have not been updated or superseded. Jourdan (1935), a captain in the French colonial infantry, was the first to attempt a systematic and more or less comprehensive (but not in-depth) description of Dazaga. His work, at a mere thirty pages of grammatical description, focuses especially on the verbs of Dazaga, providing many verb paradigms. He also includes a brief description of nouns, adjectives, numerals, pronouns, and adverbs. While short, his work is systematic and informative. A brief French-Dazaga lexicon and short collection of phrases, proverbs, and stories bring the book to fifty-seven pages (plus brief introductory material). As Jourdan himself states, syntax is barely addressed in the book: 'The syntax [of Dazaga], which is entirely based on position, is very simple and is not mentioned in this grammar manual' (Jourdan 1935:1). His fullest description of Dazaga syntax comes in the following paragraph, where he notes that 'the subject precedes the verb, the object is placed between the subject and the verb', probably providing the first explicit identification of Dazaga as an SOV language. He continues and concludes his syntactic description by noting that 'the direct object precedes the indirect object [that is, the theme precedes the recipient], the adjective follows the noun, the adverb is placed before the term to which it is related, the nominal complement follows the noun' (Jourdan 1935:1–2). In his lexicon, Jourdan identifies the class of each of the verbs, using his three class system. However, his three class system is not related to the later three class system proposed by Lukas (1953), which prevailed in Saharan studies until more recent studies suggested re-evaluation of the verbal system (cf. §5.1). Rather, Jourdan's Class 1 and Class 2 are comprised of verbs in Class 3 of the standard system (what I analyze as light verb constructions; cf. §5.3.2 and §5.5.1), and his Class 3 corresponds to the standard Class 2 (what I analyze as simple verbs; cf. §5.3.1 and §5.5.1). Like LeCoeur & LeCoeur (1956), he does not identify as a distinct group those verbs which comprise the standard Class 1 (what I analyze as  $S_p$  verbs; cf. §5.5.2).

Lukas (1953) provides the longest and most comprehensive description of Dazaga produced to date, though some data and discussion is included which is identified as representing the 'northern dialect', referring to Tedaga. He provides a sketch of Tubu phonology (1953:1–30), including detailed discussion of morphophonemics and other (diachronic and synchronic) phonological processes. He describes nouns (*substantiv*), adjectives, numerals, pronouns, verbs, postpositions, (so-called) prepositions, conjunctions, and adverbs. The last thirteen pages are given to a discussion of Tubu syntax, including topics such as subject and predicate, pairing of verbs, uses of *Aktionsarten*, uses of

prepositions, word order, interrogatives, relative clauses, conditional clauses, etc. Due to the complexity of the verbal systems in Saharan languages, Lukas devotes nearly a hundred pages to his treatment of Tubu verbs. The detail of his description and the clear organization of his work (much more clearly organized than LeCoeur & LeCoeur (1956)) are strong points in his work. Nevertheless, his most important contribution is his analysis of the verb system, and his three-class categorization of Dazaga verbs, a categorization that has been widely accepted for Dazaga and other Saharan languages since his work (though with recent challenges; cf. Ortman (2003); Jakobi & Crass (2004); Kellenberger (2008), etc.).

LeCoeur & LeCoeur (1956) give a treatment of Tedaga and Dazaga of just over one hundred and twenty pages. They also include a ‘second book’ (*livre deuxième*) in the middle of their volume which gives one hundred and thirty pages of Tedaga texts. A ‘third book’, at the end of their volume, provides a ‘French-Tedaga lexicon’ (*lexique français-teda*) of about another one hundred and thirty pages (with approximately 1,600 entries), which includes separate columns for the Dazaga, Tedaga, and (sometimes) Kanuri equivalents of the French headwords. After a brief thirteen page sketch of the phonology of Tubu, a more lengthy second chapter (about thirty pages) deals with the morphology of nouns and pronouns. As with Lukas (1953), LeCoeur & LeCoeur (1956) devote the most space (about forty pages) to verbs. Though published a few years after Lukas’ influential work, they divide Tubu verbs into only two classes, based on the position of the third person subject agreement marker relative to the ‘root’ (LeCoeur & LeCoeur 1956:80), dividing verbs into what I will call simple verbs and light verb constructions (cf. Chapter 5). Like their French predecessor, Jourdan (1935), LeCoeur & LeCoeur fail to distinguish the standard Class 1 verbs (my  $S_p$  intransitives) from the other verbs. Their fourth chapter (about twenty pages) deals with an eclectic selection of topics in the syntax of Tubu, including comparatives, questions, negation, and ‘modality’.

### 2.3 Recent Minor Works

In the years since Lukas (1953) and LeCoeur & LeCoeur (1956), numerous smaller studies of Dazaga have been published, often heavily reliant on the earlier major works.

Bougnol (1975) is a brief and preliminary sketch of Dazaga phonology, based on his own research in Niger in 1972 in the region around Gouré.

In the 1980s, three MA theses were produced at the Université de Niamey (but not by native speakers of Dazaga), under the supervision of Kevin Jarrett

and H. Ekkehard Wolff. Abdoulaye (1985) is a study of the morphophonemics of verbs. Amani (1986) is a description and analysis of Dazaga phonology, focusing on the Dazaga of the N'gourti region (north of N'guigmi). Alidou (1988) provides a description of the morphophonemics of nouns and noun phrases of Dazaga from the Tasker region of Niger, northwest of Zinder.

Ekkehard Wolff and Hassana Alidou later coauthored a study of desegmentation (which they use to refer to the loss or reduction of segments) and tone in Dazaga, focusing on the definite marker in Dazaga from the Tasker region (Wolff & Alidou 1989). Wolff later produced a few more studies of aspects of Dazaga phonology, two on tone (1990, 1991) and one on the origin and status of nasal vowels (2011).

König's extensive work on case systems in Africa (König 2008) includes sections dealing with the agreement marking and case marking in Tubu (dependent on Lukas (1953)) and Kanuri. She was the first, to my knowledge, to suggest that Dazaga possibly exhibits split-intransitivity, an analysis that has been adopted for Beria (e.g. Jakobi & Crass 2004; Jakobi 2006, 2011), and which I follow in my own analysis of Dazaga verbs (cf. Chapter 5).

Based on decades of his own fieldwork, Kevin Walters has produced an unpublished draft description of Dazaga phonology (Walters 2013), focusing on the Keshirda dialect of eastern Niger (N'guigmi area). My own phonological description, provided in Chapter 3, relies heavily on Walters (2013), both for data and for some analysis. In August of 2014, I published a study of relative clauses in Dazaga, including a comparative study with the better-described Saharan language Kanuri (Walters 2014). The section on relative clauses in the present study (§8.2.3) draws heavily on Walters (2014), but also represents significant improvements in my understanding of Dazaga as a whole and of Dazaga relative clauses specifically.

Other Saharan languages have also seen a recent resurgence of published studies, which have variously benefited my own work on Dazaga. Ortman (2003) offers an analysis of the Tedaga verbal system that differs significantly from the traditional classification proposed by Lukas (1953). Ortman's study has proven very influential in the recent study of verbal systems in Beria (cf. Jakobi & Crass 2004; Jakobi 2006, 2011; Kellenberger 2008; Maha El-Dawi 2010), and I interact with his analysis at length in §5.1.

In Kanuri, several recent studies have focused on case marking. These studies—Cyffer (1983), Hutchison (1986), and Bondarev et al. (2011)—have been important in demonstrating the kinds of factors influencing case marking in Saharan languages. Other recent studies of Kanuri include Wolff & Löhr's (2006) study of focus in Kanuri verb morphology, Rothmaler's (2011) article on converbs (clause-chaining) and Ziegelmeier's (2011) study of argument focus in Kanuri.

The primary descriptive work for Beria is Jakobi & Crass (2004). Previous to their grammar of Beria, Andrew Wolfe produced a BA thesis study of Beria phonology (Wolfe 2001). Recent work by Jakobi (2006) and Wolfe & Adam (2015) have proven useful to me in my analysis of Dazaga case marking; my analysis is particularly indebted to Wolfe & Adam (2015). Jakobi's work on Beria's verb system (2011), along with other previous works on Beria verbs (Kellenberger 2008; Maha El-Dawi 2010), have aided my analysis of Dazaga's verb system, particularly with reference to split-intransitivity.

Other works have been concerned with the Saharan languages as a group. Cyffer has produced a prodigious number of publications in this regard (1981a; 1981b; 1991; 1996; 1998b, 2000), primarily reconstructing various elements of Proto-Saharan through comparative analysis. Bryan (1971) offers an analysis of the verb systems of East Saharan languages (namely, Kanuri, Dazaga, and Tedaga, which are now classified as Western Saharan). She synthesizes and organizes data from previous studies. Wolff (1992) is a study of the verbal systems of Western Saharan (Kanuri and Tubu). Awagana (2011) provides a comparative study of word roots from Saharan languages, reconstructing many Proto-Saharan roots.



## Phonology

Due to the primary focus of this study on morphology and syntax, this chapter on Dazaga phonology is not intended to be an exhaustive or in-depth description and analysis. Rather, I provide an introduction to the fundamentals of the phonology of Dazaga as part of the basis for my morphological and syntactic analysis in later chapters. A phonological description of Dazaga is complicated by the fact that Dazaga exhibits perhaps a higher than usual rate of variation, both within the speech of a single person and between different speakers. There are many variations in the phonology of Dazaga, which are not always consistent or predictable. LeCoeur & LeCoeur (1956:33) point out, ‘From one moment to the next, from one sentence to another, the same person does not always pronounce the same word in the same way’.<sup>1</sup> In this chapter, I largely pass over such variation without discussion, instead giving a simple presentation of what seem to be the most common pronunciations. For a fuller treatment of Dazaga phonology, see Lukas (1953:1–31, who includes a fair amount of information about dialect differences) and Amani (1986).

### 3.1 Consonant Phonemes

Dazaga has twenty consonant phonemes, as represented in Table 3.1, where parentheses indicate that a phoneme is marginal. The phonemic inventory is largely symmetrical, with a few notable exceptions. The voiceless bilabial stop /p/ is missing from the series of phonemic stops, breaking the pattern that is observed for the alveolar and velar points of articulation, of pairs of stops differing only in voice. Additionally, while /s/ has a voiced phonemic counterpart /z/, the non-alveolar voiceless fricative phonemes /f/ and /ʃ/ lack such voiced phonemic counterparts. Dazaga has four phonemic nasals.

A brief and select presentation of the evidence for the phonemic status of some phonemes in Table 3.1 is given in Table 3.2. A fuller presentation of the evidence for the phonemic status of each phoneme is presented in Walters (forthcoming). Much of the evidence in Table 3.2 comes from Walters (2013).

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<sup>1</sup> *D'un moment à l'autre, d'une phrase à l'autre, le même homme ne prononce pas le même mot de la même façon.*

TABLE 3.1 *Consonant phonemes of Dazaga*

	bilabial	labiodental	alveolar	alveopalatal	palatal	velar	glottal
<b>stops</b>	b		t d	ɸ ɖ̟		k g	
<b>fricatives</b>		f	s z	(ʃ)			h
<b>nasals</b>	m		n		ɲ	ŋ	
<b>flaps</b>			ɾ				
<b>laterals</b>			l				
<b>glides</b>	w				j		

TABLE 3.2 *Sample evidence for phonemic status of consonants*

<b>b/f</b>	[bìré]	'jug, bidon'	[fìré]	'assistant'
	[dúbú]	'one thousand'	[dùfó]	'year-old camel'
	[ànâb]	'grape'	[lóf]	'smoking pipe'
<b>d/r<sup>a</sup></b>	[gáddè]	'after having made bleed'	[gárdè]	'after having braided'
	[dóddè]	'after having seen'	[dírdè]	'after having removed'
<b>ɸ/ɖ̟</b>	[ɸíré]	'behind'	[ɖ̟íré]	'truth'
	[fóɾɸí]	'dung'	[ɔwórsárd̟íɲi]	'heartburn'
	neither [ɸ] nor [ɖ̟] occur word-finally			
<b>s/z</b>	[sírí]	'to curse'	[zírtí]	'to scatter'
	[tòsòó]	'to sew'	[tòzòó]	'to pack up and leave'
	[z] does not occur word-finally			
<b>m/n</b>	[màná]	'squirrel'	[nàná]	'mint'
	[dúmúr]	'brother'	[dúnùr]	'gold'
	[ɲàrà̃m]	'crocodile'	[ɲàrà̃n]	'water buffalo'
<b>n/ɲ</b>	[nááná]	'each'	[ɲàáná]	'everyone'
	[kínídí]	'patience'	[kìɲilí]	'ethnicity, race'
	[ɲ] does not occur word-finally			
<b>n/ɲ</b>	[nááná]	'each'	[ɲáánà]	'upper back'
	[màná]	'squirrel'	[màɲá]	'region north of N'guigmi'
	[ɲ] does not occur word-finally			
<b>ɲ/ɲ</b>	[ɲàá]	'who'	[ɲáánà]	'upper back'
	[íɲà]	'why'	[íɲà]	'young boy'
	neither [ɲ] nor [ɲ] occur word-finally			

l/r	[ólu]	‘melon’	[óru]	‘meat broth’ /d/ in Duuza
	[dóŋòl]	‘stake’	[dómór]	‘blossom (palm)’
no unambiguously native words with initial [r]				
w/j	[wáli]	‘unripe date’	[jáli]	‘child’
	[dùwí]	‘widow’	[dùjí]	‘swing for children’
neither [w] nor [j] occur word-finally				

- a It is difficult to find evidence for this phonemic contrast, since /d/ often lenites to [r] intervocally, and /r/ does not occur word-initially.

### 3.1.1 *Phones [b] and [p]*

The segment [p] is not included as a phoneme in Table 3.1. In my corpus, [p] occurs sixty-five times in uninflected forms, with the distributions shown in (1).

#### (1) *Distribution of [p]*

<i>Environment</i>	<i>Tokens</i>	<i>Comments</i>
#__	2	([púktí] ‘break out, explode’; [pòttó] ‘spotted’)
V__V	1	([kàpágà] ‘hand-breadth’)
C__V	20	(always following [m])
V__C	41	(always preceding a voiceless coronal obstruent)
__#	1	([kùrkúp] ‘machete’)

This distribution suggests that [p] is an allophone of /b/, and that the distribution of [p] can be accounted for by two rules, one of post-nasal devoicing and another of obstruent voice assimilation. The four exceptions in (1) to these two processes include three words which are of marginal significance in phonological analysis, namely the borrowed word [kùrkúp] ‘machete’ (from French *coup-coup*) and the probable onomatopoeias [púktí] ‘break out, explode’ and [pòttó] ‘spotted’ (Kevin Walters, p.c.). This leaves only the intervocalic exception [kàpágà] ‘hand-breadth’.<sup>2</sup>

2 It is possible (though by no means sure) that [kàpágà] ‘hand-breadth’ is underlyingly /kabTága/, where T represents a voiceless stop. The sequence /bT/ may then assimilate to [pp] by adjacent obstruent mutual assimilation (cf. §3.6.1), and then reduce to [p], via a degemination rule which is known to apply in some other cases.

Though post-nasal devoicing seems phonetically implausible given the voicing of the nasal, this process is not unattested in the languages of the world. Specifically, Hyman (2001), Coetzee et al. (2007), Coetzee & Pretorius (2010), and Solé et al. (2010) claim this process is productive in a number of Bantu languages (for opposing analyses, see Zsiga et al. (2006, 2007), Gouskova et al. (2011), and Boyer & Zsiga (2013)). A post-nasal devoicing rule explains certain occurrences of [p], but also explains why sequences [mb], [nd], and [ŋg] are unattested in Dazaga, apart from a single occurrence of [ŋg] (in [ʃŋgáltí] ‘mince, dice’).<sup>3</sup>

The second rule needed to explain the other occurrences of the allophone [p] is a very natural rule of obstruent voicing assimilation, where  $c_1$  in an obstruent CC sequence assimilates to the voicing of  $c_2$ . This process is observed frequently when the voiceless obstruent /t/ of the verbal plural morpheme -t triggers devoicing of a preceding obstruent (and then itself assimilates to the manner of articulation of the preceding obstruent). This is illustrated in (2), where the underlying sequence /bt/ surfaces as [pp].

- (2) kártà wáppùgì  
 kárt-à Ø-j-báb-t-gɪ  
 card-P 3.OBJ-3-hit-P-IPFV  
 ‘They are playing cards.’ [lit. ‘They are hitting cards.’]  
 ‘Ils jouent aux cartes.’

This rule predicts that when /b/ is followed by a voiced obstruent, /b/ will remain voiced. This is confirmed by the [bd] sequence in [dúbdé] ‘divorce party’.

Because of the predictability of [p], based on these two rules, and the dubious nature of apparent exceptions, I consider [p] to be an allophone of /b/. The absence of phonemic /p/ (when the other five stops are attested), though possibly physiologically motivated (cf. Ohala 1983), is an areal feature of the Saharan region, possibly motivated by other, even non-linguistic, factors (Maddieson 2013). The lack of phonemic /p/ has been claimed for Kanuri (Cyffer 1998a:19; Hutchison 1981:17–18) and suggested as a possibility for Tedaga (Ortman 2000) and Beria (Wolfe 2001:32–33).

### 3.1.2 *Phones [s] and [ʃ]*

Out of sixty-eight occurrences of word-initial [ʃ] in my database, only twelve precede a [+back] vowel. Furthermore, of these twelve, at least five ([ʃàríjà]

3 It is possible that this is actually [ʃŋgáltí] or [ʃŋkáltí].

‘law’; [ʃàhá] ‘salvation, deliverance’; [ʃáhábà] ‘population, people’; [ʃái] ‘tea’; [ʃókòrà] ‘thank you’ are clearly loan words from Arabic, and one is clearly a loan word from French ([ʃúú] ‘cabbage’). I suspect that several of the remaining six ([ʃàtárà] ‘wall covering’; [ʃàkírân] ‘inebriated’; [ʃágàl] ‘problem, pain’) are also loans from Arabic, and one is possibly a loan from English ([ʃòkʷóʃ] ‘suitcase, traveling bag’). The result is that there are, at most, six native Dazaga words with word-initial [ʃ] preceding a [+back] vowel. Further, if my suspicions are correct about four of the remaining occurrences, there would be, at most, two native Dazaga words with word-initial [ʃ] preceding a [+back] vowel, certainly a notable paucity. This paucity is nearly matched by the occurrences of word-initial [s] preceding a [–back] vowel—nine in my corpus.

The situation is not much different intervocalically, where [s] occurs before a [–back] vowel nine times, and [ʃ] occurs before a [+back] vowel seven times. Word-finally, there is virtually no contrast, as [ʃ] occurs word-finally only twice, once following [ʊ] and once following nasalized [ɪ̃], neither of which ever precedes word-final [s]. This restricted distribution of [ʃ] suggests a very marginal phonemic status for /ʃ/.<sup>4</sup>

### 3.1.3 *Phones [kʷ] and [gʷ]*

The segments [kʷ] and [gʷ] occur occasionally in my data, but I have not included them in Table 1 as phonemes of Dazaga (following LeCoeur & LeCoeur (1956:23), but contra Amani (1986:50) and Abdoulaye (1985:4)).<sup>5</sup> The environments in which [kʷ] and [gʷ] occur are not predictable. Ten out of eighteen occurrences in my data are before [+round] vowels, but the other eight instances precede [i], [ɪ], or [a]. Both [kʷ] and [gʷ] occur word initially (e.g. [gʷòní] ‘camel’) and word medially (e.g. [kògʷjè] ‘chicken’).

Due to variable pronunciation of such words by the same speaker, I analyze the alternations between [k] and [kʷ] and between [g] and [gʷ] as free variation. In recordings of the same speaker, I found that the velar stops were pronounced with and without perceived labialization, as illustrated in (3).

- (3) [gʷòní] ‘camel’  
       [gòní] ‘camel’

4 Significantly, native speakers perceive and write [s] and [ʃ] as distinct sounds, supporting my analysis of these segments as distinct phonemes.

5 Amani (1986:17, 50) and Alidou (1988:22) also list [ŋʷ] as a phoneme of Dazaga. This would be symmetrical with the other labialized velar consonants, but I have not encountered any instances of [ŋʷ]. Alidou (1988:22) lists the three labialized velar consonants as marginal.

This analysis is supported by the perception of native speakers, who do not perceive a difference between [k<sup>w</sup>] and [k] or between [g<sup>w</sup>] and [g] and do not consider them separate sounds (Kevin Walters, p.c.). Educated speakers also do not write labialization in these cases, though they do use the grapheme *w* for the phoneme /w/.

### 3.1.4 *Rhotics*

The number and articulation of rhotics in Dazaga is not agreed upon in the literature. LeCoeur & LeCoeur (1956:23) and Abdoulaye (1985:4) posit only one rhotic, the alveolar flap [ɾ]. On the other hand, Alidou (1988:22) and Amani (1986:17) claim that Dazaga has two rhotics, an alveolar flap (*vibrante*) [ɾ] and a retroflex flap [ɽ]. Jourdan (1935:3–4) states that Dazaga has an alveolar flap [ɾ] and a retroflexed [ɽ], probably agreeing with Alidou and Amani, since [d] is often manifested phonetically as a flap intervocally.

The evidence from related Saharan languages is also divided. Wolfe (2001:19–22) argues that Beria (Zaghawa) has two rhotics, the alveolar flap [ɾ] and [ɽ], which he claims is actually more of an approximant in Beria. On the other hand, Kanuri has only a ‘rolled’ (it is not clear whether [ɾ] or [ɽ] is intended) rhotic sound per Cyffer (1997:22), with no mention of a retroflexed rhotic.<sup>6</sup>

In listening to recordings of Dazaga words that contain rhotics, I have not encountered any retroflexed rhotic (nor have I encountered a voiced retroflexed coronal stop [ɽ]). My data include many clear cases of the alveolar flap [ɾ], word-medially and word-finally, and some fairly clear cases of alveolar trills [r].

The actual articulation of what is perceptually a trill [r] is not clear to me, and can probably not be confidently identified without instrumental measurements and analysis that are outside the scope of the present study.

At least one near minimal pairs exists, presented in (4), which illustrates contrast between [r] and [ɾ] (though the [ɾ] here may actually be /d/ underlyingly).

- (4) [áró] ‘male goat’  
       [àró] ‘custom, tradition’

However, there is little other evidence for the contrastive nature of the trill [r], and, most importantly, little evidence of its phonemic status relative to [ɾ]. A more attractive explanation (suggested by Kevin Walters, p.c.) for the

6 However, Cyffer (1997:22; 1998a:19) does mention an allophonic retroflexed lateral approximant [ɽ].

phonetic presence of the trill [r] is that it is underlyingly a geminate flap /rr/. In this case, there is only one rhotic phoneme, /r/, with a phonetic realization of [r] when geminated. Thus, the underlying segmental contrast between the two nouns in (4) could be represented as below, in (5).

- (5)
- /árró/ → [áró]

‘male goat’
- /aró/ → [àró]

‘custom, tradition’

This is the analysis adopted in Table 2, as indicated by the absence of /r/.

3.2 Vowel Phonemes

The number of claimed vowel phonemes in Dazaga has varied widely in the literature (cf. Wolff 2011). Thus, LeCoeur & LeCoeur (1956) posit seven vowel phonemes, Jourdan (1935) and Abdoulaye (1985) posit eight, Lukas (1953) posits eleven, Alidou (1988) posits twelve, Bougnol (1975) posits sixteen, and Amani (1986) posits twenty-two.

In my analysis (following Walters (2013)), Dazaga has nine vowel phonemes, which are shown in Table 3.3. The vowel inventory demonstrates clear symmetry. Apart from /a/, which stands out from the other vowels in several ways, the vowel phonemes could each be distinguished by the three features [±high], [±ATR], and [±back]. The phoneme /a/ requires that one of the distinctive features [±low] or [±round] be used as well, to distinguish it from /ɔ/. I have used [±round] for this purpose, rather than [±low], in the following table.

TABLE 3.3 *Vowel phonemes of Dazaga*

	ATR	[-back]	[+back]	
		[-round]		[+round]
[+high]	+	i	a	u
	–	ɪ		ʊ
	+	e		o
[-high]	–	ɛ		ɔ
	–			

There are a couple of redundant, or predictable, vowel feature values. Specifically, [+back] is redundant for the [+round] vowels and [−round] is redundant for [−back] vowels.

Because Dazaga exhibits tongue root harmony (see §3.5), vowels that are distinguished only by their [ATR] values (such as [i] versus [ɪ], [u] versus [ʊ], etc.) do not contrast in identical environments unless 1) they are in monosyllabic words (which rarely provide #\_C or C\_C environments), or 2) the only other vowel in the word is the non-harmonizing [−ATR] vowel /a/. This creates some difficulty in finding strong contrast between these [±ATR] pairs (see §3.2.2).

As with the consonants, a brief and select presentation of the evidence for the phonemic status of some phonemes in Table 3 is provided in Table 3.4. A fuller presentation of the evidence is provided in Walters (forthcoming), which is heavily dependent on the information provided in Walters (2013).

TABLE 3.4 *Sample evidence for phonemic status of vowels*

<b>i/ɪ</b>	[ínní]	‘what’	[íní]	‘thing’
	[ɲílí]	‘jaw bone’	[ɲílí]	‘rainy season’
	[dí]	‘female camel’	[dí]	‘handle’
<b>e/ɛ<sup>a</sup></b>	[èrí]	‘pearl’	[èré]	‘natron’
	[bérí]	‘empty’	[béрэ]	‘flock, herd’
	[bìré]	‘jug’	[bìré]	‘food’
<b>e/o</b>	[èjíí]	‘rock, mountain’	[òjíí]	‘untamed, free’
	[tèskí]	‘star’	[tòskí]	‘doughnut, beignet’
	[cùrògé]	‘vast, expansive’	[gògò]	‘(on) back’
<b>u/ʊ</b>	[ùrùptí]	‘to bury, inter’	[òròdí]	‘to write’
	[gúm]	‘silently’	[nóm]	‘2.POSS’
	[wú]	‘theft’	[mó]	‘lie’
<b>o/ɔ</b>	[òsú]	‘wood pieces in well’	[òsón]	‘side’
	[dôr]	‘flock, herd’	[wôr]	‘competent, industrious’
	[sùgò]	‘bag (for tea, etc.)’	[sógò]	‘stake, picket, pole’

a For further discussion of the [±ATR] pairs [e,ɛ], [o,ɔ], see §3.2.2.

### 3.2.1 *Nasalized Vowels*

Nasalized vowels are not phonemic, and derive from the deletion of intervocalic /m/, both diachronically, as a comparison with Tedaga shows, as well



as synchronically, where there is much variation between speakers.<sup>7</sup> Wolff (2011:186) states that the presence of nasalized vowels, other than in definite forms, may be attributed 'to the presence of lexical /m/ which, for diachronic or shallow phonological reasons, does no longer occur in the (synchronic) phonetic realizations'.<sup>8</sup> Diachronically, many words which are normally now pronounced with nasalized vowels previously had a full bilabial nasal consonant /m/. This is demonstrated from the comparison of Dazaga forms with the current equivalent Tedaga forms (no tone data), as in (6).

(6)	<i>Dazaga</i>	<i>Tedaga</i>
	[níí] 'village'	[nomɔ] 'village'
	[kùún] 'elephant'	[kumon] 'elephant'
	[tíí] 'tooth'	[tómɔ] 'tooth'
	[àó] 'man'	[omuri] 'man'

Synchronically, vowel nasalization is the result of an underlying (abstract) intervocalic /m/. However, vowel nasalization as a result of this abstract intervocalic /m/ is not consistent, and varies from speaker to speaker, with some speakers nasalizing the vowels, and some speakers no longer doing so, as illustrated in (7).

- (7) [dǐí] ~ [dǐi] 'flour'  
 [ḡḡóṛ] ~ [ḡḡóṛ] 'rabbit'

### 3.2.2 [±ATR] Vowel Pairs [e,ɛ], [o,ɔ]

As reported in Walters (2013), the phonemes /e/ and /o/ are somewhat marginal, because the great majority of their occurrences could be explained as assimilation of the [−ATR] vowel phonemes /ɛ/ and /ɔ/, respectively, to other [+ATR] vowels that are clearly phonemic, namely, /i/ and /u/. This cannot reasonably be considered an accident of my data, as an even more extreme situation is reported for the closely related Eastern Saharan language Beria (or Zaghawa; cf. Jakobi & Crass (2004), Anonby (2007); cf. also Wolfe 2001:35–37).

7 I have not found any evidence that vowel nasalization is the result of the loss of any other intervocalic nasal consonant, and my findings are confirmed by Kevin Walters (p.c.).

8 Similarly, LeCoeur & LeCoeur (1956:30) claim, 'If a consonant in a weak position is a nasal, it is not pronounced, but its nasality persists by attaching to the adjacent vowel'. Assuming phonemic nasalized vowels, Amani (1986:75) notes, 'Historically, long nasal vowels are the result of the voiced bilabial nasal consonant /m/ dropping out between two identical nasalized vowels'.

In Jakobi & Crass' (2004) Beria data, [e] and [o] never occur independently of another [+ATR] vowel in the same word (Anonby 2007:219), favoring an analysis in which [e] and [o] are merely [+ATR] allophones, respectively, of /ɛ/ and /ɔ/, and the phonemic vowel inventory includes only seven vowels.<sup>9</sup> Such a seven vowel inventory with [ATR] harmony is much more common in East Africa than in West or Central Africa (Casali 2008:503).

However, in agreement with Walters (2013), I consider /e/ and /o/ to be marginally phonemic in Dazaga, because there are examples in which no other [+ATR] vowel is present to cause underlying /ɛ/ and /ɔ/ to assimilate to their harmonic counterparts /e/ and /o/. These examples, presented in Table 3.5, are very few, but difficult to explain away.

TABLE 3.5 *Evidence for phonemic status of /e/ and /o/*

Evidence for /e/		Evidence for /o/	
[érè]	'currently, presently'	[gògó]	'back'
[dóólè]	'country'	[dóólè]	'country'
[gègè]	'malaria'		
[tèèrè]	'the other'		

Other evidence is inconclusive, as variant pronunciations often include either /i/ (e.g. [wérèd'] vs. [wérèdì] 'heritage') or /u/ (e.g. [òrdʒól] vs. [ùndʒúl] 'crafty, smart').

### 3.2.3 *The Phone [i]*

In addition to the vowel phonemes in Table 3, the segment [i] also occurs, but, because of its limited distribution, I do not consider it to be phonemic. This segment always occurs immediately preceding a [+sonorant] consonant (cf. Alidou 1988:24), whether in an open or closed syllable, with the exception of the following word: [wídén] 'gazelle'.

While [i] only occurs preceding a [+sonorant] consonant, all other vowels may also occur in this environment, so the environment 'preceding a [+sonorant] consonant' does not predict the occurrence of [i]. However, the

9 Anonby (2007:219) says that the same analysis has been claimed by Constance Kutsch-Lojenga (her p.c. with Anonby) for Dazaga and by Mark Ortman (2000) for Tedaga.

reverse prediction—that a [+sonorant] consonant always follows [i]—holds. I analyze this as a case of conditioned free variation between allophonic [i] and the phonemic vowels preceding a [+sonorant] consonant.

Though I do not consider [i] to be phonemic, there are some words with [i] for which I do not have evidence for what the underlying vowel is. In these cases, I have retained [i], even in some underlying forms.

### 3.3 Syllable and Word Structure

Syllable structure is not complex. The examples in (8) illustrate the canonical syllable types (cf. Amani 1986:77), which are unambiguously attested. Bold type indicates the relevant syllable in each example.

(8)	CV	<b>b</b> è.dí.gè	‘beginning’	gá.là	‘advice’
	CVC	bó.lò <b>m</b>	‘porridge’	fér.dè	‘loincloth’
	CVV	tíi	‘food, a meal’	bàá	‘paternal aunt’
	CVVC	gée <b>r</b> .tí.ré	‘sad’	lààp.tí	‘to befriend’
	V	è.bí.bí	‘wasp, bee’	àn.ḡā.ó	‘twin’
	VC	èr.fé	‘animal skin’	òr.kó	‘goat’
	Ń	ń.tà	‘2S’	ń.tór	‘1P.POSS’

Syllable type Ń has a fairly restricted distribution, occurring only word-initially, and primarily in certain first and second person pronouns, second person forms of *S<sub>p</sub>* intransitive verbs (cf. §5.5.2), as the second person object marker in some simple transitive verbs, and in the conjunction [ń.tá] ‘and’ (cf. [ń.tà] ‘2S’). However, the nasal (always coronal, preceding [t], in my data) is clearly syllabic, since it bears tone (and the underlying high tone in [ń.tà] ‘2S’). Syllable type VC is only attested word-initially. Syllable types CV and CVC represent the overwhelming majority of syllables in Dazaga. CVV occurs fairly frequently, but CVVC occurs only nine times in my data, including one loan word.<sup>10</sup>

Consonant clusters in Dazaga are almost completely restricted to heterosyllabic sequences consisting of a nasal or liquid (not ‘sonorant’, because glides

10 Kevin Walters has pointed out (p.c.) that these nine instances were almost surely historically CVCVC sequences. For instance, similar alternations are observed today between dialects of Dazaga, as between Keshirda [sòǝ́r] and Duuza [sògór] or [sòhór] for ‘navel’. Also, cf. Dazaga (Keshirda dialect) [ḡǝ́r] versus Tedaga [ḡǝ́mór] for ‘rabbit, hare’ and Dazaga [kùún] versus Tedaga [kùmón] for ‘elephant’.

never occur in coda position in Dazaga) followed by an obstruent, as illustrated in (9).<sup>11</sup>

(9)	[kèm.pè.rí]	‘chaff’	[gì.rìn.tí]	‘hippopotamus’
	[kín.ʔí]	‘captive’	[dón.kò]	‘shed, hangar’
	[kùr.fò.ú]	‘dog bowl’	[fér.tí.rì]	‘carpet type’
	[ár.dí.gí]	‘wealth’	[bór.sà]	‘trust, loyalty’
	[ɲí.ɲíc.ʃí]	‘louse’	[kór.ʔé.lì]	‘morning heat’
	[búr.ḍʒík]	‘chicken pox’	[bèr.ké]	‘next year’
	[tár.gà.zí]	‘branch’	[fár.hà]	‘cheerful, merry’
	[bé.l.ké]	‘morning’		

There are a few occurrences of (non-geminate) heterosyllabic sonorant-sonorant sequences, as illustrated in (10). In these sequences, the first consonant is always a liquid, and the second a nasal (an ordering we expect based on the Syllable Contact Law; cf. Parker 2011, Murray & Vennemann 1983).

(10)	[fór.má.ʃí]	‘vacation, furlough’	[ʔʃéér.ní]	‘obstacle, difficulty’
	[àr.pél.lí]	‘porcupine’	[múl.múl.tí]	‘to lightning’
	[pól.pól.tí]	‘hop, skip’		

Rarer than sonorant-sonorant clusters, (non-geminate) [sC] clusters (cf. Goad 2011) occur only in the sequence [sk] (twenty-four occurrences in my data). These are best analyzed as heterosyllabic due to the rare and ambiguous attestation of other onset clusters. These [sk] clusters are illustrated in (11).

(11)	[tès.kí]	‘star’	[jés.kò]	‘black’
	[ɲòs.kí]	‘yesterday’	[kós.kòl]	‘lower-leg’

Heterosyllabic sequences [pt] and [kt] are also common, but occur primarily in the infinitive form of verbs,<sup>12</sup> as illustrated in (12).

(12)	[dáp.tí]	‘to sweat, perspire’	[ʔʃáp.tí]	‘to gather’
	[ʔík.tí]	‘to jump’	[hàk.tí]	‘to find, obtain’

11 This is partially a matter of interpretation, but the ability to bear tone also helps distinguish the high vowels from the glides.

12 Out of 105 occurrences of [pt] or [kt] in my corpus, only six were not verbs, and one of those six is a borrowing.

A summary of attested (phonetic) heterosyllabic consonant clusters in lexical forms is given in Table 3.6, where the vertical column gives C<sub>1</sub> consonants and the horizontal row gives C<sub>2</sub> consonants. A number in a box marks an attested cluster type, and the number indicates the frequency of each cluster type (in lexical forms). As expected for heterosyllabic consonant clusters, the vast majority of attested cluster types (all but two) are either sonority plateaus or drops in sonority. Each of the two sonority rises is attested only once, and both in words that seem to involve reduplication. The sequence [pʃ] occurs only in the word [ʃʌʃʃapʃʃɪné] ‘sour’ and the sequence [ml] only in the word [múlúltí] ‘to make lightning’. Notably lacking are most sequences of nasals and homorganic voiced stops. Such sequences that are attested, namely, [ŋg] and [ɲɟ], are each only attested in a single word, [ŋg] in [ʃʃɪŋgáltí] ‘to dice, mince’ and [ɲɟ] in the borrowing [ɪɲɟʒíl] ‘gospel’ (cf. §3.1.1).

There is some evidence of complex onsets in monomorphemic words, though these are rare (cf. Amani 1986:79–80), are always of the type obstruent-liquid (cf. Parker 2012), and are always word-initial (with the possible exception of some [sk] sequences; cf. Amani 1986:82). However, with these apparent CC sequences it was very difficult for me to determine that these were not actually

TABLE 3.6 *Heterosyllabic consonant clusters (phonetic)*

	p	t	k	b	d	g	ʃ	ɟ	f	s	ʃ	h	z	m	n	ɲ	l
p		40					1										
t		12															
k		65	4														
b				10	1												
d					21												
g						2											
s			24							34							
z													6				
m	20	21								1	1			10			1
n		57										1			41		
ɲ							15	1									
ŋ			27			1											
l		41	5				5							1		1	43
r		78	33		34	6	4	3	4	10	5	1		3	1	1	

C<sup>v</sup>C sequences,<sup>13</sup> where the inter-consonantal vowel has become very brief and centralized (cf. Lukas 1953:25). In character, the inter-consonantal vowel is very like an excrescent vowel (cf. Hall 2011:1584–1585), but this term would not be fitting if the inter-consonantal vowel is a reduction of a full underlying vowel rather than a reduced kind of epenthetic vowel (understanding excrescent vowels to be a kind of epenthetic vowel; cf. Hall 2011:1584). Below are examples of possible word-initial onset clusters, with both possible transcriptions given (keeping in mind that the alternative transcriptions represent differing interpretations, not perceptibly different pronunciations).

- |      |                                      |                         |
|------|--------------------------------------|-------------------------|
| (13) | [flák.tí] or [f <sup>l</sup> lák.tí] | ‘to split lengthwise’   |
|      | [frók.tí] or [f <sup>r</sup> rók.tí] | ‘to be afraid’          |
|      | [klás.sí] or [k <sup>l</sup> lás.sí] | ‘to whet, hone’         |
|      | [krák.tí] or [k <sup>r</sup> rák.tí] | ‘take off, unpick’      |
|      | [trók.tí] or [t <sup>r</sup> rók.tí] | ‘to throb’              |
|      | [trá] or [t <sup>r</sup> rá]         | ‘a, one, a certain one’ |
|      | [trǝn] or [t <sup>r</sup> ǝn]        | ‘(numeral) one’         |

The majority of possible onset consonant clusters in Dazaga are in polymorphic words, occur word-medially, and are the result of the suffixation of [ré/ré], which derives an adjective from a noun or verb. In these cases, the possible sequence is always a coronal stop [t, d] followed by the flap [ɾ], as illustrated in (14).

- |      |  |          |                              |
|------|--|----------|------------------------------|
| (14) | [làn.tré] or [làn.t <sup>r</sup> ré]     | ‘open’   | (from [làn.tí] ‘an opening’) |
|      | [bà.nà.dré] or [bà.nà.d <sup>r</sup> ré] | ‘ruined’ | (from [bà.nà.dí] ‘to ruin’)  |

If these are analyzed as onset clusters, then their distribution is unusual, limited to a few word-initial occurrences, as well as many word-medial occurrences across a particular morpheme boundary. On the other hand, if these are not underlyingly onset consonant clusters, it would be difficult to explain why certain vowels in certain words have undergone this reduction to an excrescent-like vowel, and others have not. Given the infrequency of apparent onset

13 Kevin Walters (p.c.) notes that even ‘educated native speakers seem to have a hard time deciding [whether to write these as CC or CVC sequences]’.

consonant clusters in monomorphemic words, I do not consider these to be true underlying consonant clusters (cf. Lukas 1953:26–7).<sup>14</sup>

Consonant clusters do not occur in codas (cf. Amani 1986:82).<sup>15</sup>

Given these unambiguous syllable types and the discussion above, I posit a maximal syllable template of [CVVC] for Dazaga, where VV represents a long vowel.

The vast majority of words in Dazaga end with a vowel (cf. Lukas 1953:5). Of the occurrences of word-final consonants in my data (in lexical forms), only about ten percent (36 out of 362) are obstruents. Many obstruent-final words are borrowings (cf. Lukas 1953:5) from Arabic (e.g. [dáhàb] ‘gold’), French (e.g. [kárt] ‘playing card’), or English (e.g. [ʃòkʷóʃ] ‘suitcase’) or (in non-lexical forms) imperative singular verb forms ending in [b] or [bʰ]. Overwhelmingly, word-final consonants are nasals (but only /m/ and /n/, never /ɲ/ or /ŋ/) or liquids (/l/ and /r/). Glides do not occur word-finally in Dazaga.

Every possible combination of four syllables (of types CV or CVC) is attested in non-reduplicated, monomorphemic words, with the exception of CV.CVC. CVC and any quadrisyllabic words with more than one CVC syllable. Two uninflected nouns with five syllables are attested in my data, but these include reduplication: [dì.rì.dí.rí.dí] ‘a walk’ and [ʃì.gí.lì.gí.lì] ‘striped polecat’.

### 3.4 Tone

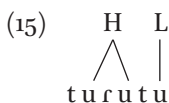
There are four phonetic tones (allotones): high, low, falling, and rising (cf. Amani 1986:82; Lukas 1953:7–8; Wolff 1990, 1991; Wolff & Alidou 1989). Falling and rising tones are heavily restricted in environment, as described below. The high and low tones pattern in a pitch accent system (contra Alidou (1988:33), who claims Dazaga has two tonemes, a high and a low, and contra Amani (1986:85–87), who considers each phonetic realization a separate toneme, but analyzes rising and low tone as allotones of a single toneme). The high tone(s) is part of the underlying form of a word, and the low tone is assigned afterward, by default, to any unassociated vowels. No words occur in my data in which

14 In the case of [tʃɔ̃n] or [tʃɔ̃n] ‘one’, this non-cluster analysis seems to be supported by 1) the rising tone contour which, as proposed in §3.4, suggests that another full vowel was historically present, and 2) the corresponding Tedaga word [tɔɔ] ‘one’ (tone data not available), which still contains a full vowel between the [t] and the rhotic.

15 The only exception to this in my data is the borrowing [kárt] ‘playing card’, from French *carte*.

all tones are low (cf. Amani 1986:83, 87). Dazaga exhibits tonal ‘downdrift’ (cf. e.g. Connell (2011:838), Hombert (1974); also called ‘automatic downstep’, Stewart (1965)).

Harry van der Hulst (2011:1007, following Hyman (2006, 2009)) describes two typical ‘properties’ of pitch accent languages. The ‘obligatoriness’ property requires that every word have at least one accented syllable,<sup>16</sup> or high tone; the ‘culminativity’ property requires that every word have only one accented syllable. These typical properties are found in Dazaga, if ‘culminativity’ is extended to require only one accented syllable or series of syllables per word. Thus, each word in Dazaga must have at least one syllable bearing high tone, but may have more than one syllable bearing high tone, provided all high tones occur in a contiguous sequence, uninterrupted by intervening low tones.<sup>17</sup> Although multiple syllables can bear high tone, the data are congruent with an analysis with the two pitch accent language properties mentioned by van der Hulst (2011:1007). Indeed, the fact that all high tones in a given word must be adjacent supports an analysis in which a series of adjacent syllables bearing high tone is really a single high tone value multiply associated (Hyman 2011; Goldsmith 1990:66) with one or more adjacent syllables. This can be graphically represented as in (15), for the adjective [túrútù] ‘similar’.



If high and low tones were both phonemic, we would expect to find examples of four way tonal contrasts on segmentally identical disyllabic words. The analysis of Dazaga’s tone system as pitch accent predicts that such a four way tonal contrast on disyllabic words will not occur—a prediction confirmed by the data. There are multiple examples of three way contrasts between high and low tones, as illustrated in (16), but no occurrences in which a disyllabic word with LL tone contrasts with the other three possible configurations (in fact, no words with all low tones occur in Dazaga).

16 ‘Accent’ is here used as ‘a place marker for the insertion of a tone or word melody’ (Gussenhoven 2004:36).

17 The only violation of this in my data is the word [ʃígíʃígí] ‘striped polecat’, and the violation here appears to be a result of reduplication. Apart from this word, and even in other occurrences of reduplication, the pattern described above is not broken.



- (16) [fidí] 'knowledge' [kɔ̀ré] 'lid, top'  
 [fidì] 'tail' [kɔ̀rè] 'brush fire'  
 [fidí] 'ask' [kɔ̀ré] 'short'
- [nèskí] 'powdered' [ɸǎjá] 'deception'  
 [nèskì] 'soul, life' [ɸǎjà] 'gift'  
 [nèskí] 'newness' [ɸǎjá] 'gambling'

Under the pitch accent analysis, the three way contrasts illustrated in (16) would be analyzed as differences in placement and attachment of the underlying high tone, and not as phonemic contrast between high and low tones. Thus, the underlying forms of the three way contrast of tonal patterns on the segmental sequence [kɔ̀rɛ] could be represented as in (17). Default low tones would then be assigned to unassociated vowels by a phonological process prior to phonetic realization.

- (17)  $\begin{array}{c} \text{H} \\ | \\ \text{k} \text{ } \text{ɔ} \text{ } \text{r} \text{ } \text{ɛ} \end{array}$  'lid, top'       $\begin{array}{c} \text{H} \\ | \\ \text{k} \text{ } \text{ɔ} \text{ } \text{r} \text{ } \text{ɛ} \end{array}$  'brush fire'       $\begin{array}{c} \text{H} \\ \wedge \\ \text{k} \text{ } \text{ɔ} \text{ } \text{r} \text{ } \text{ɛ} \end{array}$  'short'

Monomorphemic words have tonal melodies that remain on the word even if it is shortened (tonal 'stability' (Goldsmith 1990:227–28)), resulting, for example, in monosyllabic words with falling tone due to apocope in (CVCV) disyllabic words that had high and low tones. This variable segmental surface representation of words and the constant tonal melody is illustrated in (18), suggesting an ordering of default low tone association before optional apocope.

- (18) [gúrò] 'able to' vs. [gûr] 'unable to'  
 [bórò] 'very' vs. [bôr] 'very'  
 [jálì] 'child' vs. [jâl] 'child'

In the examples in (18), a vowel segment is apocopated, but the tone with which it was associated does not disappear. Rather, after becoming disassociated with the apocopated vowel, it re-links to, or associates with, the preceding vowel. This results in a single vowel segment with multiple associations on the tonal tier (Hyman 2011; Goldsmith 1990:39–40), surfacing as a tonal contour.

Falling (e.g. [mùlòfûr] 'hyena') tones occur only on a final vowel or, more commonly, a vowel immediately preceding a word-final consonant (which is almost always a sonorant; cf. Alidou (1988:33); Amani's (1986:83) transcriptions are faulty on this point). This suggests that the falling contour is due to

a deleted word-final syllable or vowel, which leaves behind its tonal melody, which in turn combines with the tone of the preceding vowel to create a falling contour (cf. Alidou 1988:33–34). The same process explains the few occurrences of rising tones (cf. Lukas 1953:7), which, again, only occur on word-final vowels or on vowels immediately preceding a word-final consonant (e.g. cf. [èjě̀n] vs. [àjàná] for ‘fruit of *salvadora persica* bush’).

This analysis of falling and rising tones as the result of the deletion of stem-final segments or syllables is further corroborated by the effect of adding a vowel suffix or clitic, such as the plural suffix [a] or the clitic determiner [u] or [ma]. When a word’s last vowel bears a falling or rising tone, this contour is spread out over the suffix or clitic, resulting in a high-low or low-high tonal sequence over two vowels. This is illustrated in (19).

- (19) [òjùl]<sup>18</sup>      ‘cardinal direction’  
       [òjúlà]      ‘cardinal directions’  
       [òjúlù]      ‘the cardinal direction’
- [àlâm]      ‘flag’  
       [àláà]      ‘flags’  
       [àlámà]      ‘the flag’

Dazaga has lexical tone, as demonstrated in (16). It also has grammatical tone, though this is not a common way of distinguishing grammatically distinctive forms (as opposed to Beria; cf. Jakobi & Crass (2004)). The most frequently occurring use of grammatical tone is the tonal difference between the plural imperative and third person plural perfective verb forms for simple verbs (cf. Chapter 5). This is illustrated below in (20).

- (20) [górtò]      ‘they cut it’                      [wíttù]      ‘they acquired it’  
       [gòrtó]      ‘(2P) cut it!’                      [wìttú]      ‘(2P) acquire it!’
- [fórtò]      ‘they detached it’                      [ḍ́zùmpù]      ‘they refilled it’  
       [fòrtó]      ‘(2P) detach it!’                      [ḍ́zùmpú]      ‘(2P) refill it!’

18 There are a few words, like [òjùl], for which I do not have a record of a synchronic vowel-final variant. If these forms are underlyingly consonant-final and also have underlying falling tones, there would be a handful of apparent contradictions to my analysis of Dazaga’s low tone as part of the phonetic spell-out (and not underlying).

In these cases, the imperative morpheme that distinguishes the plural imperatives from the third person plural indicatives is a floating high tone (a ‘not uncommon’ phenomenon in African languages (Gussenhoven 2004:35); cf. Goldsmith 1990:20–27). This floating high tone associates with the word-final epenthetic vowel, triggering the Obligatory Contour Principle (OCP; cf. Leben 1973; Goldsmith 1976; McCarthy 1986; Bye 2011, etc.), which causes the deletion of the preceding high tone. A default low tone rule then associates with the toneless root syllable. The derivational process for both [gòrtó] ‘(2P) cut it!’ and [górtò] ‘they cut it’ is illustrated in (21), where an H indicates a floating high tone.

(21)		<i>Plural imperative</i>	<i>3rd plural indicative</i>
	Underlying representation	/górt-t-H/	/górt-t/
	Vowel epenthesis	górtòH	górtò
	Associate H tones	górtó	—
	Obligatory Contour Principle	gòrtó	—
	Associate default L tones	gòrtó	górtò
	Phonetic representation	[gòrtó]	[górtò]
		‘(2P) Cut it!’	‘They cut it.’

Another case of grammatical tone is the tonal difference that distinguishes nouns and adjectives with closely related senses, such as the examples in (22). In these pairs, the noun form always has a constant high tone melody, and the adjective form has a mix of high and low (or low and falling) tones (this perhaps suggests that the adjectival form is basic, and the constant high tone derives the nominal form from the adjective).

(22)	[ḍžàhál]	‘ignorant’	[kìnníl]	‘jealous’
	[ḍžáhál]	‘ignorance’	[kínníl]	‘jealousy’
	[kʷíjà]	‘curious’	[mìgìzì]	‘insensible’
	[kʷíjáj]	‘curiosity’	[mígìzì]	‘insensibility’
	[tàggôr]	‘prudent’	[wàsál]	‘identifiable’
	[tàggór]	‘prudence’	[wásál]	‘identifying trait, mark’
	[wòsò]	‘healthy’	[zòntó]	‘bad’
	[wósó]	‘health’	[zóntó]	‘bad thing, badness’

This same tonal contrast is sometimes exhibited between noun-adjective pairs with unrelated meanings. However, many adjectives are derived from nouns by means of the derivational adjectivizer suffix *-ré/ré*, and are easily distinguishable from their nominal counterparts, even apart from tonal differences. These two phenomena are illustrated in (23).

- (23) [bírí]    ‘pedestrian’    [bórsà]    ‘trust, loyalty’  
       [bìrí]    ‘cheap’        [bòrsàré]    ‘trust worthy’

### 3.5 Vowel Harmony

Dazaga exhibits vowel harmony based on the feature [ATR] (cf. Hulst & Weijer 1995). This is not surprising given Casali’s (2008, 2003) claim that [ATR] vowel harmony may well be an areal feature of sub-Saharan languages, especially Niger-Congo and Nilo-Saharan languages. The domain of [ATR] vowel harmony in Dazaga is the phonological word (i.e. including affixes and clitics).

The [ATR] vowel harmony system has nine vowel phonemes (cf. Table 3), including four pairs of harmonic counterparts [i, ɪ; u, ʊ; o, ɔ; e, ɛ]. This [ATR] pattern is one of the most common in sub-Saharan Africa (Casali 2008:501). Unlike most nine (phonemic) vowel systems with [ATR] harmony (Casali 2008:502), the [−ATR] phoneme /a/ in Dazaga does not occur with [+ATR] vowels in root morphemes, but can occur in suffixes and clitics attached to [+ATR] roots. In these cases, /a/ can pattern with [+ATR] vowels, but the quality of the vowel does not consistently change to [+ATR].<sup>19</sup>

The vast majority of affixes and clitics (perhaps all) are ‘stem-controlled’ (Casali 2008:514), assimilating to the stem vowels’ feature value for [ATR]. Because the allomorphs of these affixes and clitics are phonologically predictable, I normally mention only the [−ATR] allomorph in subsequent chapters. These kinds of harmonizing affixes and clitics are illustrated in (24) to (27), where the affixes and clitics are shown in bold type.

19 However, Kevin Walters (p.c.) believes he hears a consistent difference in [ATR] values when [a] is suffixed to stems whose vowels differ in [ATR]: [a] on [−ATR] stems and [ə] on [+ATR] stems. This is difficult to determine with certainty, apart from instrumental measurements (e.g. with ultrasound or MRI imaging) of the position of the tongue root of low vowels in [+ATR] environments (cf. Gick et al. 2006; Starwalt 2008).

- (24) *Imperfective aspect suffix*  
 [+ATR] [bùrtírígì] 'we jump / we will jump'  
 [-ATR] [filìjintígì] 'they herd [animals]'
- (25) *Adjectivizer (derivational) suffix*  
 [+ATR] [nùgòòré] 'sticky, glue-like'  
 [-ATR] [àmpàré] 'useful'
- (26) *Dative case enclitic*  
 [+ATR] [kírúrù] 'to the dog'  
 [-ATR] [àgírórò] 'to the donkey'
- (27) *Determiner enclitic*  
 [+ATR] [bòtú] 'the cat'  
 [-ATR] [kàló] 'the boy'

In my research, the only affix that does not seem to harmonize with the [ATR] value of its stem's vowels is the nominal plural suffix [a]. Rather, [a] is transparent to [ATR] vowel harmony (cf. Gafos & Dye 2011). It remains [a] on [+ATR] words, as shown in (28),<sup>20</sup> and does not block [ATR] harmony, as shown in (29), where =rò harmonizes to [+ATR] =rù, and =ì harmonizes to [+ATR] =ì, even though separated from the [+ATR] root by the plural suffix [a].

- (28) [+ATR] [bìkí] 'invitation' [bìká] 'invitations'  
 [+ATR] [bòtú] 'cat' [bòtá] 'cats'
- (29) [kʷèjáru] 'at places' [bòtái] 'cats (ERG)'

The suffix [a] 'P' is not dominant, but simply transparent to [ATR] harmony. I have encountered no examples of dominant affixes.<sup>21</sup>

However, my data contain at least two examples where the [ATR] value of a noun's vowels differs between the singular and plural forms. In each example, the singular form of the word is of syllable structure CV.V, with the first v /o/ and the second /u/. The noun [kó.ú] 'date.pit' is [+ATR] in the singular, but [-ATR], [kó.wà], once the [-ATR] plural morpheme [a] is added. Similarly,

<sup>20</sup> But see footnote 31.

<sup>21</sup> Kevin Walters (p.c.) suspects that the verbal suffix [i] may be dominant, but is unsure. I have not been able to confirm or refute this possibility at this point.

[dò.ú] ‘girl’ is [dó.wá] ‘girls’. However, as illustrated in (28), this plural morpheme does not productively change the [ATR] value of nouns’ vowels in this way, and should not be considered a dominant affix.

Nouns, adjectives, and adverbs tend to also exhibit vowel harmony in terms of the feature [round] (cf. Rose & Walker 2011). Unlike [ATR] harmony, this is only a strong tendency, and not an exceptionless process. Thus, in my database, 74% (109 out of 147) of disyllabic CVCV nouns, adjectives, and adverbs whose first vowel was [+round] also had a [+round] vowel as the nucleus of the second syllable. Example (30) illustrates the tendency toward [+round] harmony, and (31) gives some exceptions to this tendency.

- (30) [búsù] ‘cloth’ [tògú] ‘white camel’ [bòsò] ‘fish’  
       [ɸúrò] ‘work’ [gògò] ‘back’ [sógò] ‘stake, picket’

- (31) [kóré] ‘short’ [fófi] ‘viper’ [wúrè] ‘thief’

### 3.6 Other Phonological Processes

Dazaga exhibits many phonological processes (and unpredictable variations),<sup>22</sup> especially at morpheme boundaries. Below I briefly present several of the most common such processes. I refer the reader to Lukas (1953:8–31),<sup>23</sup> Amani (1986), Abdoulaye (1985), and Alidou (1988) for fuller treatment of the phonology and morphophonemics of Dazaga.

#### 3.6.1 Assimilation

When a rhotic and another sonorant become adjacent (through vowel deletion, etc.), the rhotic totally assimilates to the sonorant.

22 This is often pointed out in the literature. Lukas (1953:8) states that in studying the grammatical forms and dialects of Tubu, ‘we come across an abundance of sound changes’ (*stoßen wir auf eine Fülle von Lautveränderungen*). LeCoeur & LeCoeur (1956:17; cf. Amani 1986:6) write, ‘We come upon differences from village to village, and almost family to family. This anarchy makes precise philological study of a dialect very difficult...’ (*On tombe dans des différences de village à village, presque famille à famille. Cette anarchie rend très difficile l’étude philologique précise d’un dialecte...*). Bryan (1971:227) claims, ‘In [Class II verbs], sound change often obscures the elements in Teda-Tubu’.

23 This lengthy section in Lukas (1953:8–31) contains a lot of interesting information, but includes many diachronic phonological changes that are of little importance in a synchronic description of Dazaga.

(32) *Rhotic assimilation*

/dér-ní/	→	[dènní]	‘I didn’t go’
/bék-t-ní-ré-a=a/	→	[bèkkìnnáá]	‘the ones who were not (there)’
/amán-ré/	→	[àmànné]	‘faithful’
/dílm-ré/	→	[dìlìmmé]	‘leprous’
/ájkal-ré/	→	[àŋkàllé]	‘intelligent’

When a stem ends in a vowel, the vowel (if it does not first delete) assimilates completely to the vowel of a suffix or enclitic.

(33) *Stem-final vowel assimilation*

/tɪgísó-ɔ/	→	[tìgìsòò]	‘when/if it happened’
/térú-gí/	→	[térìgì]	‘he will go’

When an obstruent occurs before the verbal plural marker *-t*, the [t] assimilates to the manner and place of articulation of the preceding obstruent, and the preceding obstruent assimilates to the voicelessness of the [t], as in (34) (cf. Lukas 1953:21). This process is attested for all stops (excluding affricates) and coronal fricatives preceding the plural marker.

(34) *Adjacent obstruent mutual assimilation*

/kís-t-m/	→	[kìssóm]	‘you did’
/jób-t-r/	→	[jóp̰p̰òr]	‘we bought’
/fjóg-t-m/	→	[fjòkkôm]	‘you drew water’

3.6.2 *Dissimilation*

When two rhotics are adjacent, across morpheme boundaries, the second dissimilates by fortition to a stop, as in (35).

(35) *Rhotic fortition*

/égír=ru/	→	[égìrdù]	‘for rent’
/hér-ré/ <sup>24</sup>	→	[hèrdé]	‘happy’

24 In the case of the adjectivizer suffix, it is possible that the underlying form is */-dé/*, and that intervocally the [d] lenites to [r], but remains [d] following a root-final consonant (cf. Lukas 1953:16). However, if */-dé/* is the underlying form, we would expect it to remain as is following nasals and [l], instead assimilating as in (36). Thus, I consider */-ré/* to be the underlying form of this suffix.

When a high vowel, /i/, /ɪ/, /u/, or /ʊ/, occurs between two other vowels, it undergoes a gliding process and is realized as either [j] (for /i/ and /ɪ/) or [w] (for /u/ and /ʊ/), as in (36). The glide loses its tone, which may, however, be preserved on the following (suffix or enclitic) vowel.

(36) *Vowel gliding*

/toú/ ‘sieve’	+	/-a/ ‘P’	→	[tòwá] ‘sieves’
/laó/ ‘friend’	+	/-a/ ‘P’	→	[làwá] ‘friends’
/díí/ ‘maternal uncle’	+	/-a/ ‘P’	→	[díjá] ‘maternal uncles’
/awai/ ‘reed, cane’	+	/-a/ ‘P’	→	[àwàjá] ‘reed-P’

### 3.6.3 Deletion

Affix-final vowels following sonorant consonants delete, except word-finally, as in (37).

(37) *Vowel deletion*

/bek-ti-ni-re-a=a/	→	[bekinnaa] ‘the ones who were not (there)’
/d̥ɟuji-ni-re/	→	[d̥ɟujinne] ‘without having arranged the ground’

Root-final high vowels preceded by a liquid often delete, provided no suffixes have been attached, as seen in (38).

(38) *Post-liquid high vowel apocope*

/jálɪ/	→	[jál] ‘child’
/bóro/	→	[bôr] ‘very’

## 3.7 Orthography

The official Roman script orthography of Dazaga is still being refined and revised (Kevin Walters, p.c.), but has been used in various publications in provisional form (e.g. Walters & Hagar 2005).<sup>25</sup> Table 3.7 shows the current state of the basics of the orthography. Tone is not marked. Tongue root vowel harmony is indicated by the presence (for [+ATR]) or absence of a circumflex over the first vowel of a word. Thus [tʃɪŋàfó] ‘rice’ is written *ciŋafu*, and [dégil] ‘monkey’ is written *dêgil*. Long vowels are written with a double vowel grapheme: [kéé] ‘hand, arm’ is written *kee*. Geminate consonants are written with double consonant graphemes: [èkké] ‘tree, wood’ is written *ekke*.

25 An Arabic script orthography for Dazaga has also been under development for the past several years.



TABLE 3.7 *Graphemes of Dazaga*

Phon.	Graph.	Phon.	Graph.	Phon.	Graph.	Phon.	Graph.
/b/	b B	/tʃ/	c C	/m/	m M	/i/	i I
/t/	t T	/dʒ/	j J	/n/	n N	/ɪ/	ɪ I
/d/	d D			/ɲ/	ny Ny	/u/	u U
/k/	k K	/f/	f F	/ŋ/	ŋ N	/ʊ/	u U
/g/	g G	/s/	s S			/e/	e E
		/z/	z Z	/ɾ/	r R	/ɛ/	e E
		/ʃ/	sh Sh	/l/	l L	/o/	o O
		/h/	h H			/ɔ/	o O
				/w/	w W	/a/	a A
				/j/	y Y		

## Nouns and Noun Phrase Constituents

In this chapter I describe the morphology of nouns and the constituent structure of noun phrases. As part of this description, I include descriptions of syntactic categories (including morphology, where relevant) used in noun phrases, namely, pronouns, demonstratives, quantifiers, and articles. In §4.1, I describe the syntactic categories which may occur in noun phrases, namely, nouns (§4.1.1), adjectives (§4.1.2), pronouns (§4.1.3), demonstratives (§4.1.4), articles (§4.1.5), and quantifiers (§4.1.6). Section 4.2 deals with the order of elements within a noun phrases, giving evidence motivating each of the orderings posited.

### 4.1 Syntactic Categories Found in Noun Phrases

In this section, my aim is to briefly describe the primary features of each proposed syntactic category.<sup>1</sup> I do not attempt to give detailed argumentation and linguistic evidence to support the existence of each proposed syntactic category in Dazaga as a distinct category. Given the relative lack of clear-cut and universal criteria for identifying any given syntactic category (but cf. Baker 2003; Beck 2002; Bhat 1994; *etc.*), and the disagreement about the universality or legitimacy of such categories (cf. Croft 1991; 2000; Schachter & Shopen 2007; Kinkade 1983), I do not have the time and space here to try to unimpeachably motivate every distinction that I employ. Rather, I identify each syntactic category primarily along the lines of traditional definitions (e.g. those provided in Crystal (2003) or Trask (1993)). I loosely follow the categorizations of Schachter & Shopen (2007).

#### 4.1.1 Nouns

##### 4.1.1.1 Number

Nouns are inflected for number, but not for gender (cf. Jourdan 1935:5; Lukas 1953:32; LeCoeur & LeCoeur 1956:34–36). Gender is never grammatically marked in Dazaga. The singular form of a noun is unmarked; that is, it lacks

1 See Rauh (2010:1–8) for a useful discussion of terms such as ‘parts of speech’, ‘word classes’, ‘form classes’, ‘lexical categories’, ‘grammatical categories’, and ‘syntactic categories’, which are often used in overlapping or nearly synonymous ways. Cf. also Haspelmath (2001).

any overt singular affix or suprasegmental marking. The suffix /-a/ (with varying tone) marks the noun as plural. When a noun ends with a consonant, /-a/ is directly suffixed, with no other segmental changes (though there are sometimes tonal changes, but not in a phonologically predictable manner), as illustrated in (39).

(39) /dúmúr/ 'brother' + /-a/ 'P' → [dúmúrá] 'brother-P' / 'brothers'

An exception to this general pattern of plural affixation with consonant-final nouns is the category of nouns which end with [m] (cf. Lukas 1953:32). When a noun ends with [m] and the plural suffix is added, the [m] drops out, leaving a vv sequence (the second V of which is sometimes nasalized, with varying degrees of perceptibility). This process is illustrated by the examples in (40). The vowel preceding the deleted [m] totally assimilates to the suffix /-a/.

(40) /bólóm/ 'porridge' + /-a/ 'P' → [bólàà] 'porridges'  
 /dogúm/ 'hornless.cow' + /-a/ 'P' → [dògáá] 'hornless cows'

When a noun ends in a vowel, the suffixation of /-a/ results in the apocope of the word-final vowel. This is illustrated in (41), where the final [è] of *jégè* is apocopated when /-a/ is suffixed. The apocopation of the stem-final vowel does not result in any lengthening of the plural suffix or any other compensatory measure.<sup>2</sup>

(41) [jégè] 'house' + /-a/ 'P' → [jégà] 'houses'

#### 4.1.1.2 Diminutive

Diminutive nouns are derived from regular nouns by means of the derivational suffix *-mí*, whose allomorphs harmonize with the [ATR] value of the words to which they attach. Two other allomorphs, [í/ĩ], are the result of the /m/ being deleted, resulting in nasalization of the surrounding vowels. This derivational process is still productive, and is illustrated in (42) and (43). When a noun ends in a [+high] vowel, the vowel assimilates (on the segmental level) to the diminutive suffix (see example (42)), whereas this assimilation does not take place if the vowel is [-high], as shown in (43).

2 I have not confirmed this with instrumental measurements. This claim is based on my judgment from listening to audio recordings.

- (42) /botú/ ‘cat’ + /-mí/ ‘DIM’ → [bòtɪ́] ‘kitten, kitty’  
       /dɔ́ɔ́r/ ‘bull’ + /-mí/ ‘DIM’ → [dòrɪ́] ‘bullock’
- (43) /ɔrkɔ́/ ‘goat’ + /-mí/ ‘DIM’ → [òrkɔ́ɪ] ‘kid’

The form of the derived diminutive is not always entirely predictable. Specifically, some shortening of the root from which the diminutive is (presumably) derived is sometimes observed, as illustrated in (44).

- (44) /kɔgʷɔ́jɛ/ ‘chicken’ + /-mí/ ‘DIM’ → [kògʷòɪ] ‘chick’

When the derivational diminutive suffix is attached, the tone of the root becomes all low tones, before the high tone of the diminutive suffix. This process is exemplified in (45).<sup>3</sup>

- (45) /kírí/ ‘dog’ + /-mí/ ‘DIM’ → [kìrɪ́] ‘dog-DIM’ / ‘puppy, doggy’  
       /gʷɔ́nɪ/ ‘camel’ + /-mí/ ‘DIM’ → [gʷòɪɪ́] ‘camel-DIM’ / ‘young camel’

As expected, the derivational diminutive morpheme occurs inside of inflectional morphemes such as the plural suffix. The combination of the diminutive and plural suffix is illustrated in (46).

- (46) /gʷɔ́nɪ/ ‘camel’ + /-mí/ ‘DIM’ + /-a/ ‘P’ → [gʷòɪɪ́á] ‘young camels’

#### 4.1.2 *Adjectives*

##### 4.1.2.1 Number Agreement

Morphologically, adjectives are not distinct from nouns in Dazaga. Like nouns, they are inflected for number, but not for gender. I include adjectives as a separate grammatical category primarily because the words I consider to be adjectives 1) convey meanings (such as qualities, properties, and characteristics) that are typologically consistent with adjectives, but are not verbs, and 2) primarily occur as noun modifiers, and thus are distributionally consistent with most adjectives cross-linguistically (cf. Dixon & Aikhenvald 2004:14–28; Bhat 1994:18).

3 Beria has a similar diminutive suffix, *-nɪ* (Jakobi & Crass 2004:114–115), which also exhibits unpredictable shortening of diminutive forms and which is always preceded by all low tones.

Adjectives agree in number with the nouns they modify. Thus, an adjective modifying a singular noun will be singular, and an adjective modifying a plural noun will be plural. This is demonstrated in the following examples.

- (47) kéé      ànìgí=rò      Ø-wǎb-Ø  
          hand   left=DAT   3.OBJ-hit.IMV-2  
          ‘Hit (it) with (your) left hand.’
- (48) kàsógò    òrò      bòrá      fǹóssà      fǹíkkí  
          kàsógò    òrò      bòr-á      fǹóssò-à      Ø-fǹí-g-t  
          market   in      food-P      good-P      3-be-P  
          ‘In the market, there are good foods.’

Adjectives agree in number with the nouns they modify, whether used attributively, as illustrated by *fǹóssà* ‘good (pl.)’ in (48), or predicatively, as illustrated in (49).

- (49) àrkín      jálà      sònà      fǹóssà  
          àrkín      jálì-a      sòn-à      fǹóssò-à  
          tree.type   child-P   3S.POSS-P   good-P  
          ‘Arkin (tree), its fruits (are) good.’

#### 4.1.2.2 Adjectivizer

The primary derivational morpheme in Dazaga is the suffix *-ré*, which derives adjectives from nouns and verbs, and very rarely, other adjectives. In (50), the nouns *ǎ́zíré*, *nùgòú*, and *àmpà* become the adjectives *ǎ́zìrèré*, *nùgòòré*, and *àmpàré*, respectively, by the suffixation of *-ré*. In (51), the verbs *tòdí*, *tùgùmpí*, and *bànàdí* become the adjectives *tòdìré*, *tùgùmpíré*, and *bànàdré*, respectively, by the suffixation of *-ré*.

- (50) /ǎ́zíré/ ‘truth’ + /-ré/ ‘ADJZ’      →      [ǎ́zìrèré] ‘true, truthful’  
       /nugòú/ ‘gum, glue’ + /-ré/ ‘ADJZ’      →      [nùgòòré] ‘gummy, adhering’  
       /àmpa/ ‘use, utility’ + /-ré/ ‘ADJZ’      →      [àmpàré] ‘useful’
- (51) /tòdí/ ‘to attach’ + /-ré/ ‘ADJZ’      →      [tòdìré] ‘attached’  
       /tugùmpí/ ‘to fill up’ + /-ré/ ‘ADJZ’      →      [tùgùmpíré] ‘full’  
       /banadí/ ‘to ruin’ + /-ré/ ‘ADJZ’      →      [bànàdré] ‘ruined’

A number of phonological changes are observed with the suffix *-ré*. First, because this derivational suffix always bears high tone, preceding high tones

on the stem become low (cf. [d̥zírè] vs. [d̥zírèré] in (50)), or the whole phonological word becomes high tone (cf. [tùgùmpí] vs. [tùgùmpíré] in (51)). Additionally, the /r/ of the suffix fully assimilates to preceding stem-final nasals, as illustrated in (52).<sup>4</sup>

- (52) /tùgóm/ ‘breast’ + /-ré/ ‘ADJZ’ → [tògòmmé] ‘maternally related’  
 /kírán/ ‘fat, grease’ + /-ré/ ‘ADJZ’ → [kàrànné] ‘fat, healthy’

When a stem ends in /r/, the suffix-initial /r/ of the suffix *-ré* dissimilates to [d], as shown in (53).

- (53) /hérr/ ‘happiness’ + /-ré/ ‘ADJZ’ → [hèrdé] ‘happy’

The adjectivizer suffix *-ré* can also be suffixed to verbs to produce clauses that modify a noun (translatable into English with adjectives or participles). This phenomenon, which is fairly productive in Dazaga, is illustrated in (54) and (55).

- (54) nòskí      ìí      èíá      dèiré      írì  
 nòskí      ìí      èíí-á      Ø-j-téi-ré      Ø-írì  
 yesterday      water      hail-P      3.OBJ-3-have-ADJZ      3-come  
 ‘Yesterday, rain with hail came.’ [lit. ‘rain having hail’]

- (55) ízìn      dèrìgìré      tárí  
 ízìn      d-tér-gì-ré      Ø-téi-r  
 right      1-leave-IPFV-ADJZ      3.OBJ-have-1  
 ‘I have the right to leave.’

In (54), the phrase *ìí èíá dèiré* could be rendered into English as ‘hail-ful rain’ or ‘rain having hail’, or, more naturally, but less grammatically transparently, as ‘rain with hail’. Similarly, in (55), *ízìn dèrìgìré* could be rendered ‘leaving right’ or ‘right of leaving’. The similarity of some of the usages of *-ré* to the usage of (active and passive) participles in some European languages is probably what lead to Lukas’ (1953:136) categorization of this morpheme as a participial form (but cf. §5.8.3). This usage of *-ré* is very common and warrants further research to determine its exact relation to the more clearly ‘adjectivizer’ function.

#### 4.1.3 Pronouns

In this section I describe the various pronouns of Dazaga. Dazaga has distinct sets of personal and possessive pronouns, but does not have reflexive

4 The nasals [ɲ] and [ŋ] do not occur stem-finally (cf. §3.1), so there are no examples of this assimilatory process with these nasals.

pronouns or relative pronouns. Rather, reflexive verbs (cf. §5.8.2) are used in lieu of reflexive pronouns, and relativization strategies other than relative pronouns are employed (cf. §8.2.3.2).

#### 4.1.3.1 Personal Pronouns

Dazaga has a simple system of personal pronouns. It distinguishes singular and plural, and first, second, and third person. It does not specify gender, and does not distinguish between inclusive and exclusive for first person. These forms are given in Table 4.1.

TABLE 4.1 *Personal pronouns*

	Singular	Plural
1	tàní	tìntá
2	ńtà	nìntá
3	mèré	màrá / mòrá

These forms are ‘caseless’, and case markers (cf. §6.2) may be attached to them, which usually results in morphologically transparent forms such as those in (56).

- (56) /mɛré=rɔ/      ‘3S=DAT’ / ‘to/for/with him/her/it’  
       /ńtà=ŋa/      ‘2S=GEN.S’ / ‘of you’  
       /mɛré=ga/      ‘3S=ACC’ / ‘him/her/it’  
       /mɔrá=ŋa/      ‘3P=ACC’ / ‘them’

Rivers Camp (p.c.) reports that, in northern Kanem, a somewhat different— and probably the original—set of pronouns is used, as given in Table 4.2.

TABLE 4.2 *Personal pronouns (northern Kanem)*

	Singular	Plural
1	tɛɾɛ	tara
2	nɛɾɛ	nara
3	mɛɾɛ	mara / mɔra

Camp's hypothesis, which I adopt here, is that these forms represent the original forms of the pronouns and that the forms in Table 8 are a more common modern Arabization of pronouns. Specifically, Arabic *inta* '2s' became Dazaga's *ntà* '2s'. To the Arabic *inta* was also added Dazaga's first and second person markers—*t* and *n*, respectively—to form the plural forms *tintá* '1P' and *nintá* '2P'. The first person marker was further added to Arabic *ana* '1s' to form *tana*, which eventually became the present *tàní* '1s'.<sup>5</sup>

However, the genitive form for the first person singular pronoun is [tànó] '1s.GEN', probably derived historically from /taní/ + /ŋa/, with the second [a] assimilating in height to [ɪ], [ɪ] then deleting, and [n] and [ŋ] coalescing to [ŋ] (or the [n] just deletes).

Because verbs already mark the person and number of the subject (cf. §5.3 to §5.5), the independent pronoun subjects for first, second, and third person are regularly omitted (pro-drop). This is illustrated below in examples (57), (58), and (59), respectively.

- (57) 

bíjà	sómmà	àdí	zínìr
bíjà	són=mà	àdí	Ø-zín-r
salary	3S.POSS=DET	a.little	3.OBJ-increase-1

  
'I increased his salary a little bit.'
- (58) 

àgó	èskírù	òzùm	gònóŋì
àgó	èskí=rù	òzùm	Ø-gón-m-gì
then	new=DAT	fast	3.OBJ-take-2-IPFV

  
'Then you will fast anew.' / 'Then you will begin to fast again.'
- (59) 

gòrú	sómmà	dáá	gùŋfí	náò
gòrú	són=mà	dáá	gùŋfí	Ø-j-ná(g)
house	3S.POSS=DET	on	straw.type	3.OBJ-3-put

  
'He put straw on his house.'

When personal pronouns do explicitly occur as subjects, it is for the purpose of explicitly naming the subject after a preposed clause (as in (60)), or for information structuring purposes (as in (61), and (63) below; cf. §7.6 and §7.7).

5 LeCoeur & LeCoeur, as pointed out to me by Colleen Walters (p.c.), and Lukas both include forms starting with an *s*, namely *segini* 'un seul' and *segenta* 'tous' (LeCoeur & LeCoeur 1956:60), and *sigan* '3s' and *segantá* '3P' (Lukas 1953:47). Though I have not encountered these forms in the data I have analyzed, they are reportedly used by some in both Niger and Chad (Colleen Walters and Rivers Camp, p.c.).



- (60)  $\eta\acute{\imath}\acute{\imath}\acute{\imath}\acute{\imath}\acute{\imath}\acute{\imath}$                       bárá   dìgìsá   dìgìrìm   tìgìsòò                      tàní   dérìgì  
           $\eta\acute{\imath}\acute{\imath}\acute{\imath}\acute{\imath}\acute{\imath}\acute{\imath}$ =rù                      bárá   dìgìsá   dìgìrìm   Ø-tìgìsò-ó                      tàní   d-tér-gì  
          celebration=DAT after   days   twenty   3-happen-CTNG 1S   1-go-IPFV  
          ‘After the celebration, when twenty days have passed, I will go.’

- (61) tàní   ónnó   bònír  
          tàní   ónnó   bón-r  
          1S   now   grow-1  
          ‘Me, I have grown now.’

#### 4.1.3.2 Possessive Pronouns

Besides the personal pronouns described above, Dazaga has a separate set of possessive pronouns. Lukas (1953:49–51) and Jourdan (1935:6–7) each posit two separate sets of possessive pronouns (Jourdan calls these *adjectifs possessifs*), one a set of suffixes and another as free morphemes.<sup>6</sup> LeCoeur & LeCoeur (1956:58) give only one set of possessive pronouns (in two forms, however: singular and plural, formed with a plural suffix). However, a survey of Lukas’ and Jourdan’s two sets suggests that they are actually a single set of possessive pronouns, and the two differences ([tànó] and [tántáò]) that lead Lukas to posit different sets are actually instances of personal pronouns with the genitive case markers. Consequently, I conclude that there is only one set of possessive pronouns in Dazaga, as presented in Table 4.3.

TABLE 4.3 *Possessive pronouns*

	Singular	Plural
1	nór	ñtór
2	nóm	ñtóm
3	són	sòntó

I analyze the possessive pronouns as free morphemes, rather than as suffixes or enclitics. This is primarily due to the fact that they do not harmonize in [ATR]

6 This claim follows the patterns of Kanuri (Cyffer 2007:1103; Cyffer 1998a:47; Hutchison 1981:47–49; Lukas 1937:27–28) and Beria (Jakobi & Crass 2004:122–125), which have sets of clearly distinguishable (but morphologically related) suffixed and free possessive pronouns.

to the possessed noun, as illustrated in (62), where *nòr=ó* remains [-ATR] even though the possessed noun, *kʷòl*, is [+ATR].

- (62) àó      t'rá      kʷóí      nór=ò      Ø-írì  
       man    INDF    place    1S.POSS=DET    3-come  
       'Someone came to my place (to visit).'

As shown in Lukas (1953:49–51) and LeCoeur & LeCoeur (1956:58), these possessive pronouns also have plural forms, formed by adding the plural suffix /-a/ to the basic (singular) form of the possessive pronoun when the possessed nominal is plural. This is illustrated in (63), where *sín-á* is plural to agree with *jál-à* 'children'.

- (63) tàní      jálà      síná      kìrínír  
       tàní      jálì-a      sín-á      Ø-kirin-r  
       1S      child-P    3S.POSS-P    3.OBJ-feed-1  
       'I'm the one who fed his children.'

The fact that possessive pronouns in Dazaga agree in number with the possessed noun may suggest that they should actually be analyzed as possessive adjectives (cf. Jourdan 1935:6–7), since this is one of the characteristics of adjectives in Dazaga (cf. §4.1.1.2). However, I consider them to be possessive pronouns (along with Lukas 1953 and LeCoeur & LeCoeur 1956) that agree in number with the possessed noun, as do genitive nouns (cf. §6.2.3). I base this analytical decision primarily on the fact that possessives and adjectives have a set relative order in noun phrases, with the possessive necessarily occurring before the adjective, suggesting they belong to separate syntactic categories.

Possessive pronouns occur immediately after the possessed noun, preceding other NP elements, such as adjectives (64) and genitives (65). Like possessive pronouns, genitive noun phrases can also function as possessors of the head noun. However, they also have other functions (cf. §6.2.3) and fill a different slot in the noun phrase structure, as demonstrated in §4.2. The determiner, which normally follows adjectives, cliticizes to the possessive pronoun, when it is present.

- (64) àì      jégè      nòr=ó      kóbbó  
       this    house    1S.POSS=DET    old  
       'This (is) my old house.'

- (65) kée sómma bìróù tógórtíré  
 kée són=mà bìró=ò tógór-tí-ré  
 hand 3S.POSS=DET right=GEN.S cut-?-ADJZ  
 ‘His right hand (is) cut.’ [lit. ‘His hand of (the) right (side) (is) cut.’]

The possessive pronouns, especially *són*, very frequently co-occur with the determiner enclitic (cf. §4.1.5), as in (66), as well as with other noun phrase enclitics, such as the case markers (cf. §6.2), as illustrated in (67).

- (66) dìrí sómma d̥ʒàsó  
 dìrí són=mà Ø-j-tʃás  
 heifer 3S.POSS=DET 3.OBJ-3-sell  
 ‘He sold his heifer.’

- (67) ábbà nòróì gálà d̥ʒén  
 ábbà nòr=ó=ì gálà d-j-jén  
 father 1S.POSS=DET=ERG advice 1.OBJ-3-give  
 ‘My father gave me advice.’

#### 4.1.4 Demonstratives

Dryer (2007a:162; cf. Schachter & Shopen 2007:29; Diessel 1999, esp. page 2) characterizes demonstratives as words, like English *this* and *that*, which 1) are deictic in nature (they ‘draw the hearer’s attention to something in the perceptual space of the speaker and hearer’), and 2) usually maintain ‘at least a two-way contrast in terms of distance from the speaker’. Dazaga demonstratives fit both of these characterizations, and are presented in Table 4.4.

TABLE 4.4 *Demonstratives*

	Proximate	Distal
Singular	ái	té
Plural	ára	táà

The form *támà* ‘that (one)’ was most likely originally a combination of /té/ + /=ma/ ‘that=DET’. The modifier *tèérè* ‘the other’ is better categorized as an adjective.

As in most languages (cf. Dryer 2007a:162), demonstratives in Dazaga can function as modifiers of nouns or pronominally, as illustrated with the demonstrative ‘pronouns’ in (68) and (71), and the demonstrative ‘adjectives’ in (69) and (70).

- (68) áì      áì=rò      kóré  
       this    this=DAT   short  
       ‘This (is) short(er) than this.’

- (69) fǽúrò    áì      kǽjáí    jíí  
       work    this    easy    not  
       ‘This work (is) not easy.’

- (70) jôm      té      àófì                      ní      bàbàrfǽí  
       jôm      té      àóf-j                      ní      babart-j  
       day    that   be.afraid-3                      and    tremble-3  
       ‘That day, he was afraid and trembled.’

- (71) té-rò              bára      fòpáimà              dáá      gànǽíǽà              dùdûr              ní  
       té=rò              bára      fòpáì=mà              dáá      gànǽíǽí-à              Ø-dúd-r              ní  
       that=DAT    after    fire.basket=DET    on    charcoal-P    3.OBJ-put-1    and  
       wíní      fùnîr  
       wíní      Ø-fún-r  
       fire      3.OBJ-light-1  
       ‘After that, I put charcoal pieces in the wire basket and lit a fire.’

#### 4.1.5 Articles

Dazaga has two words which are best analyzed as ‘articles’, understanding articles to be determiners (often occurring in pairs) whose primary function is to mark definiteness or specificity (cf. Dryer 2007a:157; Kroeger 2014a:3). The two articles in Dazaga are *=ma* and *tírá*.

The article */=ma/* has four allomorphs: *[=ma]*, *[=ò]*, *[=u]*, and *[=a]* (cf. Wolff & Alidou 1989). The allomorph *[=ma]* occurs after final *[m]* and *vv* sequences (72); *[=ò]* occurs following *[-ATR]* final high vowels (*[i, ɔ]*), final liquids, and final *[n]* of *[-ATR]* words (73); *[=u]* is the *[+ATR]* counterpart of *[=ò]* (74); and *[=a]* occurs following final mid or low vowels (75).

- (72) /godúm/ ‘hammer’ + */=ma/* ‘DET’      →    [gòdúmmà] ‘the hammer’  
       /tíí/ ‘food’ + */=ma/* ‘DET’              →    [tímà] ‘the food’  
       /salái/ ‘mat’ + */=ma/* ‘DET’             →    [sàlàimà] ‘the mat’

- (73) /anɪfɪ/ ‘sand’ + /=ma/ ‘DET’ → [ànìfóò] ‘the sand’  
 /básal/ ‘onion’ + /=ma/ ‘DET’ → [básàlò] ‘the onion’  
 /karán/ ‘fat’ + /=ma/ ‘DET’ → [kàràno] ‘the fat’
- (74) /dugulí/ ‘lion’ + /=ma/ ‘DET’ → [dùgùlùù] ‘the lion’  
 /éjír/ ‘reward’ + /=ma/ ‘DET’ → [éjìrù] ‘the reward’  
 /ferín/ ‘rope’ + /=ma/ ‘DET’ → [fèrínù] ‘the rope’
- (75) /bɛrɛgɛ/ ‘stream’ + /=ma/ ‘DET’ → [bèrègáà] ‘the stream’  
 /bedige/ ‘beginning’ + /=ma/ ‘DET’ → [bèdígàà] ‘the beginning’

The two articles, =*ma* ‘the’ (and its allomorphs) and *tʳá* ‘a/an’ are semantically differentiated by their encoding of combinations of specificity and definiteness. The article =*ma* encodes ‘specific+definite’, whereas the article *tʳá* encodes ‘specific+indefinite’; the absence of any article normally indicates that the noun phrase is neither specific nor definite. Articles may occur on both plural and singular noun phrases, as demonstrated in (76) and (77), respectively.

- (76) àú      àì      káá      sónàà      dílimì      góró  
           àú      àì      kéé-a      són-a=a      dílim=i      Ø-j-kór  
 man    this    hand-P    3S.POSS-P=DET    leprosy=ERG    3.OBJ-3-cut  
 ‘This man, leprosy cut his hands.’

The use of the article =*ma* is illustrated in (77), where *fɪdì són* ‘his tail’ is both definite and specific—definite because it is inferable from the previously mentioned *kírí* ‘dog’ and specific because it refers to the tail of a specific dog (namely, ‘this dog’).

- (77) kírí      àì      fɪdì      sómmà      kílídí-rè  
           kírí      àì      fɪdì      són=mà      kílídí-rè  
 dog    this    tail    3S.POSS=DET    bend-ADJZ  
 ‘This dog, his tail (is) bent/rolled.’

In (77), it is ungrammatical to use *tʳá* in place of =*ma*, because the noun phrase is definite, whereas *tʳá* indicates indefiniteness. Similarly, the absence of any article is ungrammatical as well, because the noun phrase is both definite and specific, whereas the absence of an article indicates that the noun phrase is neither definite nor specific. These claims are demonstrated in (78).

- (78) kírí àì fǐdì sóm̩mà/\*t'írá/\*Ø kílídírè  
 kírí àì fǐdì són=mà/\*t'írá/\*Ø kílídí-rè  
 dog this tail 3S.POSS=DET/\*INDF/\*NSPC bend-ADJZ  
 'This dog, his tail (is) bent/rolled.'

A similar example of the use of the article =*ma* is illustrated in (79), where the noun phrase *fǐdì són* 'its tail' is definite (because textually evoked through the anaphoric possessive pronoun) and specific. In this example, *t'írá* 'a/an' is acceptable for the first mention of *gʷòní* 'camel', because it is unknown/indefinite at that point.

- (79) gʷòní t'írá fǐdì sóm̩mà tógórtíré  
 gʷòní t'írá fǐdì són=mà tógór-tí-ré  
 camel INDF tail 3S.POSS=DET cut-?-ADJZ  
 'A camel, its tail was cut.'

As in (78), the use of *t'írá* or the absence of an article, in place of =*ma* would be ungrammatical in this case. Even though *gʷòní t'írá* 'a camel' is explicitly indefinite on first mention, it becomes definite through its first mention and so must be marked as definite when referenced again by the resumptive possessive pronoun. This is demonstrated in (80).

- (80) gʷòní t'írá fǐdì sóm̩mà/\*t'írá/\*Ø tógórtíré  
 gʷòní t'írá fǐdì són=mà/\*t'írá/\*Ø tógór-tí-ré  
 camel INDF tail 3S.POSS=DET/\*INDF/\*NSPC cut-?-ADJZ  
 'A camel, its tail was cut.'

When a noun phrase is indefinite, but specific, it is marked with the article *t'írá* 'a/an', as in (81), where a specific soldier pierces Jesus' side, but it is not known who the soldier is (i.e. *éskír* 'soldier' is indefinite here).

- (81) jôm nébì ísàṇà ǽjittû éskír t'íráì érírù  
 jôm nébì ísà=ṇà Ø-j-jíd-t éskír t'írá=ì érí=rù  
 day prophet Jesus=ACC 3.OBJ-3-kill-P soldier INDF=ERG spear=DAT  
 òsón òsón ǽjúbù  
 òsón òsón Ø-j-júb  
 side in 3.OBJ-3-pierce  
 'The day they killed the prophet Jesus, a soldier pierced his side with a spear.'

In (81), the noun *àśón* ‘side’ lacks the article, but would be understood as definite and specific. This illustrates a pattern that is frequently observed elsewhere in which body parts often lack both a possessive pronoun and an article, as in (82) and (83), where English requires an added possessive pronoun (provided in parentheses).

- (82) dàó      dáá      difíní      dànní  
       dàó      dáá      difíní      Ø-j-téi-ní  
       head    on      hair      3.OBJ-3-have-NEG  
       ‘He doesn’t have hair on (his) head.’

- (83) mí      sómmà              èfírí      dáá      góì              déì  
       mí      sòn=mà              èfírí      dáá      gó-Ø-j              Ø-j-téi  
       son    3S.POSS=DET    shoulder    on      take-3.OBJ-3    3.OBJ-3-have  
       ‘He carried his son on (his) shoulders.’

When no article marks a noun phrase, the noun phrase is normally understood to be both indefinite and non-specific (except for the exception of body parts), as illustrated in (84), where *àníí* ‘husband’ can be neither definite nor specific.

- (84) dòú      sómmà              àníí              dànní  
       dòú      sòn=mà              àníí              Ø-j-téi-ní  
       girl    3S.POSS=DET    husband    3.OBJ-3-have-NEG  
       ‘His daughter doesn’t have a husband.’

The indefinite articles in English and French preserve a specificity ambiguity that Dazaga does not have. Consequently, in English or French elicitation sentences with *a/an* or *un/une*, the indefinite noun phrase may be understood (without other clarification) as referential or as non-referential (cf. Portner & Partee 2002:22; Kroeger 2014a:11–13). Since Dazaga distinguishes specificity by the presence or absence of articles, there are two possible constructions that can be used to translate indefinite English or French noun phrases, namely as specific, with *t'rá*, or as non-specific, with the absence of *t'rá* (that is, Ø). This alternation between *t'rá* and Ø is illustrated in (85) and (86). In this case, the definite (and specific) article =*ma* on *àǵ* ‘man’ is unacceptable as a translation equivalent because of the indefinite articles *un* in the original language, French.

- (85) g<sup>w</sup>ònóò      àú(\*mà)      t'rá/Ø      wói  
          g<sup>w</sup>òní=ò      àú(\*=mà)      t'rá/Ø      Ø-j-bó  
          camel=DET    man(\*=DET)    INDF/NSPC    3.OBJ-3-bite  
          'The camel bit a man.'  
          'Le chameau a mordu un homme.'

- (86) àbàrí      nóm màì      àrí(\*mà)      t'rá/Ø  
          àbàrí      nóm=mà=ì      àrí(\*=mà)      t'rá/Ø  
          pat.uncle    2S.POSS=DET=ERG    woman(\*=DET)    INDF/NSPC  
          nígè      dín nù  
          nígè      Ø-j-tín  
          marriage    3.OBJ-3-put  
          'Your uncle arranged a marriage with a woman.'

Support for the specific/non-specific distinction comes from sentences where the noun phrases are clearly either specific or non-specific based on the meaning of the sentence, and not due to specific/non-specific marking in English or French. Thus, in (87), where *àí* 'husband' is both indefinite and non-specific (non-referential), neither *=ma* nor *t'rá* is grammatical, and *àí* must be unmarked.

- (87) dòú    sóm mà      àí(\*mà)      \*t'rá/Ø      dànní  
          dòú    són=mà      àí(\*=mà)      \*t'rá/Ø      Ø-j-téi-ní  
          girl    3S.POSS=DET    husband(\*=DET)    \*INDF/NSPC    3.OBJ-3-have-NEG  
          'His daughter doesn't have a husband.'  
          'Sa fille n'a pas de mari.'

A similar example is given in (88), where *àfráí* 'winnowing basket' is non-specific. Again, as in (87), *=ma* and *t'rá* are both ungrammatical, and the non-specific noun phrase cannot take an article (i.e. it is marked Ø). The generalization from examples (87) and (88) is that non-existent things do not take an article.

- (88) fatime      àfráí(\*ma)      \*t'rá/Ø      dòóm  
          fatime      àfráí(\*=ma)      \*t'rá/Ø      Ø-dòóm-Ø  
          (name)    winnowing.basket(\*=DET)    \*INDF/NSPC    3.OBJ-make-2  
          tén  
          t-jén-Ø  
          1.OBJ-give-2  
          'Fatime, make me a winnowing basket.'



Definite, non-specific noun phrases are indicated in the same way as indefinite, non-specific noun phrases; that is, there is no definite/indefinite distinction for non-specific noun phrases. Thus, in (89), *dìrdé kwíréré* ‘next chief’ is definite but also non-specific (non-referential), and so is unmarked.

- (89) *dìrdé kwíréré(\*à) \*tírá/Ø*      *ɲégí àí*  
*dìrdé kwíréré(\*=à) \*tírá/Ø*      *ɲégí àí*  
 chief next(\*=DET) \*INDF/NSPC (place) man  
 ‘The next chief of N’guigmi will be a man.’

However, in (90), the noun phrase *ràjís èskúù* ‘the new president’ takes the article =*ma*, even though the phrase is presumably non-referential. It may be that a perceptual verb like *dódìrgì* ‘I will see it’ requires a specific, referential object, thus requiring an article.

- (90) *wáláwálárò bárá ràjís èskúù \*tírá/\*Ø*  
*wáláwálá=rò bárá ràjís èskí=ù \*tírá/\*Ø*  
 elections=DAT after president new=DET \*INDF/\*NSPC  
*dódìrgì támànîr*  
*Ø-dód-r-gì támá-Ø-n-r*  
 3.OBJ-see-1-IPFV hope-3.OBJ-LV-1  
 ‘After the elections, I hope that I will see the new president.’

The articular and anarthrous (non-articular) patterns described and demonstrated above are summarized below in Table 4.5.

TABLE 4.5 *Marking of NP definiteness & specificity*

	Definite	Indefinite
Specific	= <i>ma</i>	<i>tírá</i>
Non-specific		Ø

#### 4.1.6 *Quantifiers (Including Numerals)*

Here, under the label ‘quantifiers’, I include quantifier words like ‘all’ and ‘every’, as well as numerals (which, in semantics, are considered ‘cardinal quantifiers’ (e.g. Saeed 2009:330)).

Of those quantifiers that combine with nouns, Dazaga exhibits universal quantifiers such as *nááná* ‘each’ and *ginná* ‘all’, but not negative existentials such as ‘no (thing)’ and ‘none (of)’. These quantifiers, which follow the nouns they modify (sometimes with intervening constituents), are illustrated in (91) and (92).

- (91) *jôm nááná èrĩĩ kúrĩárò kàrànr jénrìgì*  
*jôm nááná èrĩĩ kúrĩ-á=rò Ø-kàrànr Ø-jén-r-gì*  
 day every story child-P=DAT 3.OBJ-read-1 3.OBJ-give-1-IPFV  
 ‘Every day, I read a story (to my) children.’<sup>7</sup>

- (92) *éligà níí áà ginná fíkí ñìfìrĩfìntìgì*  
*éligà níí áì=à ginná fíkí ñìfìrì-j-n-t-gì*  
 population village this=GEN.P all tomorrow feast-3-LV-P-IPFV  
 ‘All the population of this village will feast tomorrow.’

To express the idea ‘no-one’ (for ‘nothing’, see below), the negative existential predicate may be used, as in (93), or *nááná* ‘everyone’ plus the negative existential predicate may be used, as in (94). The equivalent of the English quantifier ‘none’ is expressed by *ginná* ‘all’ plus the negative existential, as illustrated in (95).

- (93) *mèrérò àddí bèí*  
*mèré=rò àddí Ø-bé(g)*  
 3S=DAT small 3-be.not  
 ‘There is no-one smaller than him.’

- (94) *nááná kòrí bèí*  
*nááná kòrí Ø-bé(g)*  
 everyone other 3-be.not  
 ‘There is no one else.’

7 The lack of an article on the specific and definite NP *kúrĩá* ‘children’ may be parallel to the frequent absence of articles on body parts, and may be part of a broader marking pattern affected by alienable versus inalienable possession. This grouping of semantic domains, as well as their lack of the article, fits the general patterns of inalienable possession, where body parts and kinship terms are the prototypes of inalienable items, and where inalienable items are frequently morphologically reduced (Heine 1997:172).

- (95) *dèéŋà nírà ginná bèkkí*  
*dèéŋà-a nír-à ginná Ø-bég-t*  
 brother-P 1S.POSS-P all 3-be.not-P  
 ‘All my brothers are not (here).’ / ‘None of my brothers are (here).’<sup>8</sup>

Dazaga has two quantifiers which do not modify nouns, and which, strictly speaking, are therefore not noun adjuncts, but which are included here because they are quantifiers. These two quantifiers are *ǰááná* ‘everyone’ and *ínníná* ‘nothing’, illustrated in (96), and (97), respectively.<sup>9</sup>

- (96) *òrózì ǰáánái déi*  
*òrózì ǰááná=i Ø-j-téi*  
 possession everyone=ERG 3.OBJ-3-have  
 ‘Everyone has a possession.’ / ‘Everyone owns something.’

- (97) *kířǵì sómmà ðíró ínníná bèi*  
*kířǵì sòn=mà ðíró ínníná Ø-bé(g)*  
 intestine 3S.POSS=DET in nothing 3-be.not  
 ‘There’s nothing in its intestines.’

The cardinal numerals of Dazaga are presented in Table 4.6. The plural of *kídírí* ‘(one) hundred’ is *kádárá* ‘hundreds’. This plural form is used to form multiples of one hundred, such as *kádárá řǵúú* ‘two hundred’.

TABLE 4.6 *Cardinal numerals*

1–10	Teens	20 & Above
1 <i>ťrčn</i>	11 <i>mórdìm sá ťrčn</i>	20 <i>đìgírìm</i>
2 <i>řǵúú</i>	12 <i>mórdìm sá řǵúú</i>	30 <i>mòrtá àgòzózó</i>
3 <i>àgòzózó</i>	13 <i>mórdìm sá àgòzózó</i>	40 <i>mòrtá tòzózó</i>

8 The absence of the article from the definite and specific *dèéŋà nírà* ‘my brothers’ is likely a transcriptional error. The only difference between the presence or absence of the article would be the length of the final vowel (plus a low tone), often making it difficult to hear the difference between articular and anarthrous plural noun phrases. Cf. example (76).

9 These both likely derive from question words plus the particle *ná* ‘even, also’. Thus, *ǰááná* ‘everyone’ probably derives etymologically from *ǰàá* ‘who’ plus *ná*, and *ínníná* ‘nothing’ probably derives etymologically from *ínní* plus *ná*.

TABLE 4.6 *Cardinal numerals (cont.)*

1–10	Teens	20 & Above
4 tòzǒǒ	14 mórdǎm sá tòzǒǒ	21 dìgírǎm sá tʼrǒn
5 fòú	15 mórdǎm sá fòú	35 mòrtá àgòzòó sá fòú
6 dìssí	16 mórdǎm sá dìssí	49 mòrtá tòzǒǒ sá jìsìí
7 túrùsù	17 mórdǎm sá túrùsù	50 mòrtá fòú
8 wóssò	18 mórdǎm sá wóssò	100 kídírí
9 jìsìí	19 mórdǎm sá jìsìí	101 kídírí jé tʼrǒn jé
10 mórdǎm		200 kádára fǐúú
		1,000 dúbú
		2,000 dúbá fǐúú
		10,000 dúbá mórdǎm

Like other noun adjunct quantifiers, numerals follow the noun they modify (cf. §4.2), as illustrated by *kùlùṅkú tʼrǒn* in (98) and *íná fǐúú* in (99).

- (98) kàrágà=rò kùlùṅkú tʼrǒn Ø-jìt-t-îr  
 bush=DAT fox one 3.OBJ-kill-P-1  
 ‘We killed one fox in the bush.’

- (99) íná fǐúú árá dàgîr  
 ínì-a fǐúú árá Ø-dák-r  
 thing-P two those 3.OBJ-want-1  
 ‘I want those two things.’

## 4.2 Structure of Noun Phrases

The structure of noun phrases is summarized in the phrase structure rule in (100).<sup>10</sup> As indicated by the parentheses around the other constituents, the head noun is the only obligatory constituent of the noun phrase. The slash

10 The order of constituents in a Dazaga noun phrase (including the head-initial order and the occurrence of the demonstrative after adjectives and numerals) follows the pattern typical of Heine’s (1976:55) ‘Galla’ subgroup of his ‘type D’ African languages. This ‘Galla’ subgroup includes several Nilo-Saharan languages (the Saharan languages, Mararit,

between ADJ and NUM indicates that these constituents may occur in either order. DEM and DET are stacked in brackets to show that they are mutually exclusive in distribution.

$$(100) \quad NP \rightarrow N \text{ (POSS) (ADJ/NUM) } \left( \begin{Bmatrix} \text{DEM} \\ \text{DET} \end{Bmatrix} \right) \text{ (GEN NP) (Q)}$$

Pronouns also function as full noun phrases, so a second (complementary) phrase structure rule could be formulated for noun phrases, as given in (101).

$$(101) \quad NP \rightarrow \text{PRO}$$

Even when a pronoun functions as a noun phrase, it can still take additional noun phrase constituents, as illustrated in (102) and (103), where pronouns co-occur with a numeral and a quantifier, respectively.

$$(102) \quad \begin{array}{llll} [\text{màrá}]_{\text{PRO}} & [\text{fǽúú}]_{\text{num}} & \text{k}^{\text{w}}\hat{\text{i}} & \text{gódu} \\ \text{màrá} & \text{fǽúú} & \text{k}^{\text{w}}\hat{\text{i}} & \emptyset\text{-gó-t} \\ 3\text{P} & \text{two} & \text{between} & 3\text{-fight-P} \\ \text{'The two of them fought between themselves.'} \\ \text{[lit. 'Between them two, they fought.']} \end{array}$$

$$(103) \quad \begin{array}{llll} [\text{màrá}]_{\text{PRO}} & [\text{ginná}]_{\text{Q}} & \text{fǽttò} \\ \text{màrá} & \text{ginná} & \text{j-jád-t} \\ 3\text{P} & \text{all} & 3\text{-die-P} \\ \text{'They all died.'} \end{array}$$

In the following paragraphs, I give evidence motivating the inclusion of each noun phrase constituent and its relative order in (100).

That the head nouns occur at the beginning of their phrases is somewhat unexpected (e.g. Dryer 2007a, 2007b; Greenberg 1966) for a language that is head-final in clausal word order (SOV) and for adpositions (postpositions), and whose subordinators occur clause-finally.<sup>11</sup> Nevertheless, the head noun always occurs at the beginning of the noun phrase, preceding the next possible constituent, a possessive pronoun. This order is demonstrated in (104) and (105), where the head noun and possessive pronoun are identified in brackets.

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Fur, Sungor, Nyimang, Nubian, Kunama, and Barea) as well as some Cushitic languages (Somali, Rendille, Boni, Elmolo, and Galla).

11 Comrie (1989:95), however, does note 'the widespread occurrence of NA [Noun-Adjective] basic order in OV languages'.

Example (106) further illustrates the correct order of noun and possessive pronoun, and (107) demonstrates that the opposite order is ungrammatical.

- (104) tàní [jál-à]<sub>N</sub> [són-á]<sub>POSS</sub> Ø-kìrìn-ír  
 1S child-P 3S.POSS-P 3.OBJ-feed-1  
 'I'm the one who fed his children.'

- (105) àǒ àì dílimì [káá]<sub>N</sub> [sónà]<sub>POSS</sub> górò  
 àǒ àì dílim=ì kéé-a són-a Ø-j-kór  
 man this leprosy=ERG hand-P 3S.POSS-P 3.OBJ-3-cut  
 'This man, leprosy cut his hands.'

- (106) [dèéǵà]<sub>N</sub> [níràà]<sub>POSS</sub> írdò  
 dèéǵì-a nír-a=à Ø-ír-t  
 brother-P 1S.POSS-P=DET 3-come-P  
 'My brothers arrived.'

- (107) \*[níràà]<sub>POSS</sub> [dèéǵà]<sub>N</sub> írdò  
 nír-a=à dèéǵì-a Ø-ír-t  
 1S.POSS-P=DET brother-P 3-come-P  
 ('My brothers arrived.')

Possessive pronouns precede adjectives and numerals, as shown in (108) and (109). Examples (110) and (111) demonstrate that the opposite order is ungrammatical.

- (108) gʷǎná [sónàà]<sub>POSS</sub> [fǵóá]<sub>ADJ</sub> írdò  
 gʷǎní-a són-a=à fǵóó-a Ø-ír-t  
 camel-P 3S.POSS-P=DET white-P 3-come-P  
 'His white camels arrived.'

- (109) míà [níràà]<sub>POSS</sub> [fǵúú]<sub>NUM</sub> bórò fǵurointu  
 mí-a nír-a=à fǵúú bórò fǵuro-j-n-t  
 son-P 1S.POSS-P=DET two very work-3-LV-P  
 'My two sons worked a lot.'

- (110) \*gʷǎná [fǵóá]<sub>ADJ</sub> [sónàà]<sub>POSS</sub> írdò  
 gʷǎní-a fǵóó-a són-a=à Ø-ír-t  
 camel-P white-P 3S.POSS-P=DET 3-come-P  
 ('His white camels arrived.')

- (111) \*míà [fjúú]<sub>NUM</sub> [níràà]<sub>POSS</sub> bóró fúrointu  
 mí-a fjúú nír-a=à bóró fúro-j-n-t  
 son-P two 1S.POSS-P=DET very work-3-LV-P  
 ('My two sons worked a lot.')

Adjectives and numerals can occur in either order relative to each other, as demonstrated in (112) and (113). This is indicated in (100) with the slash between ADJ and NUM.

- (112) kállìà fòfírá [fjúú]<sub>NUM</sub> [bá]<sub>ADJ</sub> wárfíntò  
 kállí-a=ì fòfírí-a fjúú bó-a wárt-Ø-j-n-t  
 boy-p=ERG bird-P two big-P grill-3.OBJ-3-LV-P  
 kállìà fòfírá [bá]<sub>adj</sub> [fjúú]<sub>NUM</sub> wárfíntò  
 kállí-a=ì fòfírí-a bó-a fjúú wárt-Ø-j-n-t  
 boy-p=ERG bird-P big-P two grill-3.OBJ-3-LV-P  
 'The boys grilled the two large birds.'

- (113) áskà [àgòzòó]<sub>NUM</sub> [fjóá]<sub>ADJ</sub> túrtù  
 áskí-a àgòzòó fjòó-a Ø-túr-t  
 horse-P three white-P 3-go-P  
 áskà [fjóá]<sub>ADJ</sub> [àgòzòó]<sub>NUM</sub> túrtù  
 áskí-a fjòó-a àgòzòó Ø-túr-t  
 horse-P three white-P 3-go-P  
 'Three white horses left.'

This reversible ordering of adjectives and numerals may suggest that numerals are of the same syntactic category as adjectives. In this case, numerals would not be of the same syntactic category as quantifiers, and in fact this conclusion is supported by the fact that numerals and quantifiers are obligatorily ordered with the numeral preceding the quantifier, as demonstrated in (114) and (115), where the order numeral-quantifier is acceptable, but quantifier-numeral is ungrammatical.

- (114) kállìà [tòzòó]<sub>NUM</sub> [gìnná]<sub>Q</sub> fjàttò  
 kállí-a tòzòó ginná j-jád-t  
 boy-P four all 3-die-P  
 'All four boys died.'

- (115) \*kàllíà [gìnná]<sub>Q</sub> [tòzóz]<sub>NUM</sub> fǽttò  
 kàllí-a ginná tòzóz j-jád-t  
 boy-P all four 3-die-P  
 ('All four boys died.')

Adjectives and numerals precede demonstratives and determiners, as shown in (116) to (119).

- (116) jíní [kóbbó]<sub>ADJ</sub> [ái]<sub>DEM</sub> fǽssò jíí  
 meat old this good not  
 'This old meat (is) not good.'

- (117) fétì [dèrú]<sub>ADJ</sub>[ù]<sub>DET</sub> tɛlfɪ  
 fétì dèrí=ù tɛlt-Ø-j  
 box empty=DET crush-3.OBJ-3  
 'He crushed the empty box.'

- (118) ìná [àgòzóz]<sub>NUM</sub> [ára]<sub>DEM</sub> dàgír  
 ìní-a àgòzóz árá Ø-dák-r  
 thing-P three these 3.OBJ-want-1  
 'I want these three things.'

- (119) àǔ [tʰrɔ̃n]<sub>NUM</sub> írò[ò]<sub>DET</sub> dɛɛŋì nírò  
 àǔ tʰrɔ̃n Ø-írì=ò dɛɛŋì nír=ò  
 man one 3-come=DET brother 1S.POSS=DET  
 'The only/one person who came was my brother.'

However, the determiner tends to cliticize to a possessive pronoun, when present, so that the determiner sometimes precedes the adjective, as in (120).

- (120) ái jégè nór=[ò]<sub>DET</sub> [kóbbó]<sub>ADJ</sub>  
 this house 1S.POSS=DET old  
 'This (is) my old house.'

Determiners and demonstratives cannot co-occur, and so are stacked in curly brackets in (100), indicating mutually exclusive distributions. This mutually exclusive distribution of determiners and demonstratives is demonstrated in (121), (122), and (123).



- (121) àrǐ=mà  
 woman=DET  
 ‘the woman’
- (122) àrǐ                      àì  
 woman                      this  
 ‘this woman’
- (123) \*àrǐ=mà              àì  
           woman=DET      this  
 \*àrǐ                      àì=mà  
           woman              this=DET

Determiners and demonstratives precede genitive noun phrases, as illustrated in (124). This is demonstrated in example (125), where a demonstrative after a genitive noun phrase is ungrammatical.

- (124) fǐnnè    [àì]<sub>DEM</sub>    [jégèŋà]<sub>GEN</sub>    làntré  
 fǐnnè    àì            jégè=ŋà            lánt-ré  
 door    this            house=GEN.S    open-ADJZ  
 ‘This door of (the) house is open.’
- (125) \*fǐnnè    [jégèŋà]<sub>GEN</sub>    [àì]<sub>DEM</sub>    làntré  
 fǐnnè    jégè=ŋà            àì            làntré  
 door    house=GEN.S    this            open-ADJZ  
 (‘This door of (the) house is open.’)

Genitive noun phrases precede quantifiers (which come last in the noun phrase), as illustrated in (126).

- (126) ònàí            dògòsú    ámmá    [kórtí            tàŋóà]<sub>GEN</sub>  
 ònàí            dògòsú    ámmá    kórtí            tàŋó=à  
 last.night    night            people    neighborhood    1S.POSS=GEN.P  
 [gìnná]<sub>Q</sub>    jégè            tàŋórò            fǐábòddintò  
 ginná            jégè            tàŋó=rò            fǐáp-d-t-n-t  
 all            house            1S.POSS=DAT    gather-1-REFL-LV-P  
 ‘Yesterday night, all the people of my neighborhood gathered at my house.’

## Verbs

In this chapter I describe Dazaga verbal morphology. In general, it can be characterized as agglutinating and synthetic (in terms of the parameters summarized by, e.g. Aikhenvald (2007:3–8)). Verbs exhibit significantly more morphology than other syntactic categories. While adjectives and nouns have only up to two affixes (as well as clitics), verb roots can have up to five affixes (as well as clitics).

In §5.1, I review past analyses of the verbal system and introduce my own analysis, which better captures morphological patterns and recognizes the phenomenon of split-intransitivity. Instead of positing three classes of verbs, I re-analyze traditional Class 1 verbs as  $S_p$  intransitives. I analyze Class 2 and 3 intransitives as  $S_a$  verbs. I re-analyze the difference between Class 2 and Class 3 verbs as simply a difference between simple verbs and light verb constructions.

I introduce the basics of the argument agreement system in §5.2. In §5.3, §5.4, and §5.5, I describe the conjugation of transitive, ditransitive, and intransitive verbs, respectively. Aspect is described in §5.6, mood in §5.7, and voice in §5.8. In §5.9, I briefly discuss suppletive verb roots.

Because they do not technically display distinctive morphology, causative constructions are omitted from this chapter and are covered in Chapter 8.

### 5.1 Verb Classes

In previous studies of Saharan languages, a three-class system (cf. Table 5.1) has been proposed and largely accepted as a suitable analysis for verbs in Dazaga and Tedaga (Bryan 1971; Lukas 1953:62; cf. Jourdan 1935:10; Nachtigal 1881) as well as in Beria/Zaghawa (Jakobi & Crass 2004:47–84; Wolfe 2001:39–41). Kanuri exhibits a similar verb class system, although it no longer distinguishes Class 1 and so now only has two classes of verbs, corresponding roughly to Classes 2 and 3 in other Saharan languages (Cyffer 2007:1108; 1998a:33–35; Hutchison 1981:113–4; Jarrett 1981; Lukas 1953:62).

In this standard analysis (e.g. cf. Cyffer 1991), Class 1 verbs have prefixed subject agreement morphemes; Class 2 verbs have suffixed first and second person subject agreement morphemes and prefixed third person subject agreement morphemes; Class 3 verbs are formed in the same way as Class 2, but the

morpheme *n* (traditionally identified as an auxiliary)<sup>1</sup> takes the place of the Class 2 verb root relative to the affixes, and the conjugated ‘auxiliary’ is suffixed to the Class 3 root. The subject (S) and object (O) agreement morphemes for the three verb classes, according to the standard analysis, are summarized below in Table 5.1 (other morphemes, such as the plural marker, are excluded from this table for the sake of simplicity).<sup>2</sup>

TABLE 5.1 *Summary of subject & object agreement morphemes per standard analysis of Saharan verbal system*

Pers.	Class 1		Class 2				Class 3				
	S	Root	O	S	Root	S	Root	O	S	Aux	S
1	t/d-	—	t/d-		—	-r	—	-t/d		-n	-r
2	n-	—	n-		—	-m	—	-n		-n	-m
3	Ø-	—	Ø-	j-	—		—	-Ø	-j	-n	

Instead of the standard three-class system, LeCoeur & LeCoeur (1956:73–80) propose a two-class system for Tubu (Tedaga and Dazaga), calling one class ‘suffixing’ and the second class ‘prefixing’. They draw this distinction based on whether the third person subject agreement marker is (per the standard analysis; cf. Table 14) prefixed to the verb stem (Class 2) or suffixed to it (Class 3). They ignore the fully prefixing verbs that are grouped as Class 1 in the standard analysis.

More recently, Ortman (2003) also has proposed that the Tedaga verb system is best analyzed as comprising two verb classes, one prefixing and one suffixing, each of which is subdivided into ‘semantically’ transitive and intransitive

1 Cf. Cyffer (2007:1108; 1998a:33) for Kanuri; Jakobi & Crass (2004:47, 65) and Wolfe (2001:67) for Beria/Zaghawa; and Lukas (1953:79) for Dazaga. Ortman (2003:113) mentions this possibility in connection with Tedaga, but is skeptical of the identification of the ‘auxiliary’ with the (traditionally) Class 2 verb *n* ‘say, think’.

2 While Class 1 verbs do not take object agreement affixes, there are a few (four) transitive and ditransitive Class 1 verbs in Dazaga, which mark their objects with independent pronouns.

subclasses.<sup>3</sup> Ortman’s proposed prefixing class corresponds to what have usually been identified as Classes 1 (Ortman’s prefixing intransitive) and 2 (Ortman’s prefixing transitive). His proposed suffixing class comprises verbs that have usually been identified as Class 3 transitive verbs as well as a group of semantically intransitive verbs that have previously been grouped with Class 3 verbs, but which Ortman distinguishes as a sub-group of his suffixing class. This analysis is summarized in Table 5.2 (cf. Ortman 2003:138).

TABLE 5.2    *Summary of Ortman’s (2003) analysis of Tedaga verb classes*

‘Nominal’ Forms			
Prefixing ( <i>nd-</i> )		Suffixing ( <i>-di</i> )	
Transitive (standard analysis Class 2)	Intransitive (standard analysis Class 1)	Transitive (standard analysis Class 3)	Intransitive (standard analysis Class 3)

Unlike LeCoeur & LeCoeur’s (1956) analysis, Ortman’s (2003) basic division of Tedaga verbs into two classes is based primarily on a binary distinction between prefixing (*nd-*) and suffixing (*-di*) forms observed in the ‘nominal forms’ (something like gerunds) of verbs. Each major class is then divided into two subclasses based on ‘semantic’ transitivity.<sup>4</sup> Ortman (2003) argues that the subject and object agreement markers on Tedaga verbs are best analyzed as a morphologically ergative/absolutive system, where the single argument of intransitive verbs is marked the same way as the patient of transitive verbs and differently than the agent of transitive verbs. Ortman’s analysis of the ergative and absolutive agreement morphemes in Tedaga is summarized in Table 5.3, where A stands for Actor, S for Single argument and U for Undergoer.

3    Similar analyses have been proposed by Kellenberger (2008), Maha Abdu El-Dawi (2010), and Jakobi (2011) for Beria (Zaghawa).

4    Significantly, Ortman employs only morphological criteria for identifying a sub-class of ‘semantically’ intransitive prefixing verbs (2003:123). He does not list his criteria for identifying a sub-class of ‘semantically’ intransitive suffixing verbs. Nevertheless, all of his ‘semantically’ intransitive examples do appear to be semantically intransitive when evaluated by the criteria proposed by Hopper & Thompson (1980).

TABLE 5.3 *Summary of Ortman's ergative/absolutive analysis*

	Prefixing ( <i>nd-</i> )				Suffixing ( <i>-di</i> )				
Pers.	Transitive				Transitive				
	U	A	Root	A	Root	U	A	Aux	A
1	t/d-		—	-r	—	-t/d		-n	-r
2	n-		—	-m	—	-n		-n	-m
3	Ø-	j-	—		—	-Ø	-j	-n	
Pers.	Intransitive				Intransitive				
	S	Root		Root	S	Aux			
1	t/d-	—		—	-t/d	-n			
2	n-	—		—	-n	-n			
3	Ø-	—		—	-Ø	-n			

Other morphemes (such as the reflexive morpheme and the plural marker) are excluded for the sake of simplicity. Blank cells indicate that no morpheme fills the slot.

Clearly, given the patterns summarized in Table 5.3, an ergative/absolutive analysis is appropriate for the agreement markers in Tedaga. Intransitive verbs in Tedaga (with the exception of a few truly morphologically intransitive verbs) also take either a reflexivity marker or an 'impersonal' third person singular A agreement marker (cf. Ortman 2003:115–121, 123–130).

Ortman's (2003) analysis of the Tedaga verb system appears persuasive based on the data he presents. However, I argue below that an analysis similar to his would not be suitable as an analysis of Dazaga's (current) verb system. Furthermore, I argue that the standard three-class analysis misses major unifying patterns, and that Dazaga's verb system is best analyzed as having no distinct 'classes' (in the sense of groups of verbs that signal the same information by means of disparate morphemes). Rather, all verbs use the same set of agreement markers, but transitive verbs include both simple verbs and light verb constructions, and intransitive verbs exhibit split-intransitivity. Bryan (1971:225) hinted at this analysis when she noted that there were (per the

traditional analysis) three verb classes in the Eastern Saharan languages, but only ‘two basic patterns of conjugation’ (namely,  $S_a$  and  $S_p$ ). König (2008:46) was the first (to my knowledge) to suggest a split-S analysis of the ‘verbal pronouns’ (i.e. object ‘prefixes’ and subject ‘suffixes’ (König 2008:46)) for Dazaga, noting a ‘phonological resemblance between the subject pronouns of first and second person encoding S, and the object pronouns of class 2 verbs encoding first and second person O’. A similar split-intransitivity analysis had already been proposed for Beria (Jakobi & Crass 2004; Jakobi 2011; cf. also Jakobi 2006; Kellenberger 2008; Wolfe & Adam 2015).

Argument agreement affixes on verbs in Dazaga appear to have originally followed an ergative/absolutive system, supporting Ortman’s (2003) analysis of Tedaga, which generally preserves an older form of Saharan than does Dazaga. Dazaga agreement affixes still have some superficial traces of an ergative/absolutive system (namely, the identity of some intransitive subject agreement markers with transitive object agreement markers), but I argue that Dazaga’s system of verbal argument agreement is best analyzed synchronically as a split-intransitive system. In this system, all transitive verbs use the same two sets of subject and object agreement markers, but some intransitive subject markers match transitive subject markers while other intransitive subject markers match transitive object markers. References to Classes 1, 2, and 3 hereafter refer to the traditional (but here abandoned) classifications of verbs, and, when referenced, are used primarily in order to facilitate comparison to previous studies of Saharan languages.

At least three differences from Ortman’s (2003) analysis of Tedaga suggest that Dazaga no longer has an ergative/absolutive system for subject and object agreement morphemes.

First, Dazaga does not display the uniform division of verbs into ‘prefixing’ and ‘suffixing’, based on the ‘nominal’ (gerund/infinitive) forms. While the nominal forms of light verb constructions (traditionally Class 3) do consistently end in *-tí/tí*, *-dí/dí*, *-sí/sí*, or *-fí/fí* (depending on the phonological environment), the nominal forms of simple verbs (traditionally Classes 1 and 2) are not prefixed with any consistently identifiable morpheme (though many simple verbs begin with *tV-*), as demonstrated by the nominal forms of several representative simple verbs, presented in Table 5.4.

Thus, the nominal forms of Dazaga verbs do not (any longer) display the clear and consistent prefixing versus suffixing division that Tedaga verbs have.

Second, semantically intransitive Dazaga verbs do not follow either of Ortman’s first two ‘strategies’ for the morphological patterns of semantically intransitive verbs. In the first strategy, semantically intransitive Tedaga verbs are formed by the same pattern of morphology as the reflexive forms of semantically transitive verbs (whether prefixing or suffixing). In contrast,

TABLE 5.4 *Nominal forms of representative simple verbs*

(trad.) Class 1	Gloss	(trad.) Class 2	Gloss
ɸɸí	'to exist'	ègí	'to cry'
màɸí	'to hear'	kínní	'to laugh'
nìrí	'to come'	lápí	'to cause to drink again'
ɲòjì	'to fight'	nàgí	'to want'
tìɸí	'to repay'	ɸèrí	'to remove'
tòɲòɸí	'to try'	tògòrtí	'to cook'
tòòɸí	'to give birth'	wàssí	'to enlighten'

semantically intransitive Dazaga verbs consistently lack reflexive morphology. In the second strategy, semantically intransitive Tedaga verbs are formed by using forms of transitive verbs with the third person singular ergative morpheme as 'impersonals'.<sup>5</sup> The various person and number absolutive morphemes function as the single argument of the verb, and the third person singular ergative morpheme is understood as a kind of 'dummy' morpheme. In contrast, most (but cf. §5.5.2) semantically intransitive Dazaga verbs use the same subject agreement markers as are used for semantically transitive verbs, as illustrated by a representative pair of simple verbs in Table 5.5, and none exhibit a third person 'dummy' subject.

TABLE 5.5 *Transitive & intransitive subject agreement markers for simple verbs*

	Transitive	Gloss	Intransitive	Gloss
1s	kòrtô-r	'bring-1.SUBJ'	kórô-r	'appear-1.SUBJ'
2s	kòrtô-m	'bring-2.SUBJ'	kórô-m	'appear-2.SUBJ'
3s	g-òrtí	'3.SUBJ-bring'	g-óró	'3.SUBJ-appear'
1p	kòrtô-t-òr	'bring-P-1.SUBJ'	kórô-k-òr	'appear-P-1.SUBJ'
2p	kòrtô-t-òm	'bring-P-2.SUBJ'	kórô-k-òm	'appear-P-2.SUBJ'
3p	g-òrtô-tò	'3.SUBJ-bring-P'	g-óró-kò	'3.SUBJ-appear-P'

5 Jakobi (2011:88, 106) claims that most intransitives in Beria (Zaghawa) that mark their 'subject' with the same morpheme as marks the object of a transitive verb ( $S_p$  verbs) are morphologically bivalent, but have only one 'referential argument'. The non-referential argument is an impersonal third person marker.

Ortman (2003) mentions a third strategy for forming semantically intransitive verbs, namely, to have only one argument agreement morpheme on the verb, that is, true morphological intransitivity. This is what Dazaga does for all semantically intransitive verbs, but the single argument is the same morpheme (except for a small number of  $S_p$  verbs; cf. §5.5.2) as is used for the agent of a transitive verb.

Third, and perhaps most importantly, whereas Ortman (2003) shows that all morphologically intransitive verbs in Tedaga take absolutive 'subject' agreement, the vast majority of morphologically intransitive verbs in Dazaga take 'nominative' subject agreement, like transitive verbs.

Because of these crucial differences, Dazaga's subject and object agreement system should not be analyzed as ergative/absolutive, as Tedaga's should be. Rather than an ergative/absolutive system, I demonstrate below that Dazaga displays a split-intransitive pattern of argument agreement.

## 5.2 Subject & Object Agreement

### 5.2.1 *Support for 'Agreement Affix' Morpheme Analysis*

I analyze the morphemes that mark the person of the verb's subject and object as agreement affixes rather than as (clitic) pronouns. This analysis is based on the combined results of four criteria presented in Kroeger (2005:326; cf. Haspelmath 2013:222) for helping to distinguish clitic pronouns from agreement affixes.<sup>6</sup>

First, agreement markers only attach to verbs which does not particularly favor either an agreement marker or clitic pronoun analysis (a wider distribution would indicate that they were probably clitic pronouns).

Second, the co-occurrence of agreement markers with free pronouns and other full noun phrases suggests that they are agreement affixes (complementary distribution with free pronouns would support the clitic pronoun analysis). This co-occurrence is demonstrated for subjects, below, in (127), (128), and (129), where first, second, and third person pronoun subjects co-occur with first, second, and third person subject agreement markers.

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6 Cf. the similar list of criteria given in Creissels (2005:50) for distinguishing bound pronominal morphemes from 'separate [pronominal] words'.



- (127)    *ɲífírírù*                      *bàrà*            *dìgìsá*            *dìgíràm*            *tìgìsóò*  
             *ɲífírí=rù*                      *bàrà*            *dìgìs-á*            *dìgíràm*            Ø-*tìgìs-ó-ò*  
             celebration=DAT    after            day-P            twenty            3-happen-CTNG  
             *tàní*    *dérìgì*  
             *tàní*    *d-térò-gì*  
             1S            1-go-IPFV  
             ‘When twenty days after the celebration have passed, *I* will go.’

- (128)    *ɲtàí*                      *táàm*  
             *ɲtà=ì*                      *d-báb-m*  
             2S=ERG    1.OBJ-hit-2  
             ‘*You* hit me.’

- (129)    *mèréì*                      *d̥zááò*  
             *mèré=ì*                      *d-j-báb*  
             3S=ERG    1.OBJ-3-hit  
             ‘*He* hit me.’

The same co-occurrence is possible with free object pronouns and object agreement markers. This is demonstrated for free pronouns of all three persons in examples (130), (131), and (132).

- (130)    *tòntágá*                      *táápòm*  
             *tòntá=gà*                      *d-báb-t-m*  
             1P=ACC            1.OBJ-hit-P-2  
             ‘*You* hit *us*.’

- (131)    *ɲtágá*                      *náàr*  
             *ɲtà=gà*                      *n-báb-r*  
             2S=ACC            2.OBJ-hit-1  
             ‘I hit *you*.’

- (132)    *màrágà*                      *báàr*  
             *màrá=gà*                      Ø-*báb-r*  
             3P=ACC            3.OBJ-hit-1  
             ‘I hit *them*.’

When free pronouns co-occur with subject and object agreement markers, there is either a focal or contrastive topic sense (depending on context). This is indicated in the glosses of the examples above by the *italic* type. However,

this focal or contrastive topic sense is not necessarily present with free standing object pronouns for the three transitive (traditionally) Class 1 verbs, since the free standing object pronouns are grammatically obligatory with transitive verbs of that class.

Third, agreement markers occur nearer to the verb root than other aspectual and mood affixes and are never observed to occur outside of clitics, again supporting the agreement affix analysis. This is illustrated in (133), where the imperfective aspect suffix *-gi* occurs outside of the subject agreement suffix *-r*.

- (133)    *ʃikí*                *bélké*                *ná*                *hàŋîrò*                *sáà*  
              *ʃikí*                *bélké*                *ná*                *hák-Ø-n-r-ò*                *sáà*  
              tomorrow    morning    also    find-3.OBJ-LV-1-CTNG    hour  
              *dissíró*                *jèrdîrgì*  
              *dissí=rò*                *jért-r-gì*  
              six=DAT    get.up- 1-IPFV  
              ‘Tomorrow morning, if possible [lit. ‘if I find (it)’], I will get up at six o’clock.’

Finally, the agreement markers are always obligatory, which suggests that they are agreement affixes rather than clitic pronouns (which we would expect not to always be obligatory).

The results of these four criteria are summarized in Table 5.6, below, where a check mark indicates the analysis supported by the outcome of applying each criterion.

TABLE 5.6    *Criteria for clitic pronoun vs. agreement affix analyses*

Criterion	Clitic pronoun	Agreement affix
Attaches to only one part of speech?	✓	✓
In complementary distribution with free pronouns?		✓
Can it occur inside of other affixes?		✓
Obligatory?		✓

In Dazaga, the agreement markers can co-occur with free pronouns, occur inside of other inflectional affixes, and are obligatory. These patterns are

decidedly in favor of analyzing the morphemes that mark the person of the verb's subject and object as agreement affixes rather than as clitic pronouns.<sup>7</sup>

### 5.2.2 *Terminology of Split-Intransitivity*

As mentioned in §5.1, I analyze Dazaga verbs as patterning according to a split-intransitive system (what Jakobi (2006:130) refers to as an 'active/agentive' system). Some intransitives use a subject agreement marker that corresponds to the subject agreement marker of transitive verbs, and other intransitive verbs use a subject agreement marker that corresponds to the object agreement marker of transitive verbs. Because the pattern of split-intransitivity seems to be morphological, and not clearly based on distinctions in semantics (cf. Dixon 1994:104),<sup>8</sup> I avoid the terms 'active/inactive' (e.g. Sapir 1917) and 'unergative/unaccusative' (e.g. Foley 2007:380). I also avoid the terms 'subjective/objective' (Merlan 1985), because these are potentially confusing when they refer only to kinds of subject agreement.<sup>9</sup> Rather, I use 'S<sub>a</sub>' to refer to intransitives whose subject agreement markers correspond to the subject agreement markers of transitive verbs (traditionally, Class 2 & 3 intransitives). I use 'S<sub>p</sub>' to refer to intransitive verbs whose subject agreement markers correspond to the object agreement markers of transitive verbs (traditionally, Class 1 intransitives).<sup>10</sup> These labels are meant to be entirely descriptive, referencing the morphological forms of the agreement markers, and are not based on semantic criteria.

### 5.2.3 *Subject & Object Agreement Patterns*

Verbs have subject and object agreement affixes that obligatorily occur for all first and second person subjects and objects.<sup>11</sup> The only exceptions to this are three transitive and ditransitive verbs whose objects are only marked by separate, stand-alone pronominal objects and not by object agreement

7 The evidence also suggests that the agreement markers in Dazaga should be analyzed as 'Stage II' pronominal markers (obligatory, but do not require another subject/object constituent), per the criteria provided in Creissels (2005:45).

8 Dixon (1994:124), however, claims that a split-intransitive pattern 'always has a semantic basis but is never perfectly semantically determined'.

9 See Creissels (2006/07, 2007) for useful discussions on the analysis and terminology of split-intransitivity systems.

10 In using this terminology, I am following the precedent set by Jakobi in her work on Beria (2006, 2011); cf. Andrews (2007c:217).

11 Dimmendaal (2005) demonstrates that many Nilo-Saharan languages with verb-final constituent order also have subject or object agreement (or both, in the case of Saharan, Maban, and Kunama languages), as well as peripheral case (including 'dative' and 'genitive', as I propose Dazaga has; cf. §6.2).

markers.<sup>12</sup> Third person subject agreement markers occur obligatorily on all verbs, except for  $S_p$  verbs, which do not overtly mark third person subject agreement. The absence of overt agreement in this case is indicated in underlying verb forms by  $\emptyset$ .

Subject and object agreement markers do not specify the gender or number of the subject or object (like pronouns—cf. §4.1.3). Rather, they specify only the person of the subject or object. Plurality of a subject or object is marked by a single morpheme,  $-t$ , which may be taken as pluralizing either the subject or the object or both (as context allows/requires). When both subject and object are singular, this is signaled by the absence of the plural morpheme.

### 5.3 Agreement Morphology of Transitive Verbs

Verbs described in sections 5.3, 5.4, and 5.5 are in the active voice and the perfective aspect (cf. §5.6). Other verb forms are described in later sections. All transitive verbs (except for three irregular verbs; cf. footnote 12) use the same two sets of agreement morphemes to indicate the person of their subjects and objects. These subject and object agreement morphemes are presented in Table 5.7. Object agreement affixes are listed first, since they are all prefixes; subject agreement affixes are listed second, since they are mostly suffixes.<sup>13</sup>

TABLE 5.7 *Subject & object agreement morphemes of transitive verbs*

Pers.	Object	Subject
1	t/d-	-r
2	n-	-m
3	$\emptyset$ -	j-

12 These three verbs are further irregular/exceptional because they are the only transitive verbs which take the same subject agreement markers as do  $S_p$  intransitive verbs. The three verbs are *ǧǧinhètí* ‘to forget’, *màǧí* ‘to hear’, and *tǧí* ‘to repay’ (all traditionally classified as Class 1 verbs).

13 Prefix object agreement markers and suffix subject agreement markers are typical of Heine’s (1976:55) ‘Galla’ subgroup of ‘type D’ languages. His ‘type D’ languages include many languages from northeastern Africa (including all Ethiopian Semitic languages, most Cushitic languages, the Saharan languages and other Nilo-Saharan languages, and some Kordofanian, West African Niger-Congo, and Khoisan languages).

While all transitive verbs use the same subject and object agreement markers, differences in the number of ‘roots’ in verbs and the placement of the reflexive morpheme make it useful to distinguish two subgroups of transitive verbs, namely, ‘simple’ transitive verbs (traditionally Class 2 transitives) and transitive ‘light verb constructions’ (traditionally Class 3 transitives).<sup>14</sup> A similar distinction will be made within *S<sub>a</sub>* verbs (cf. §5.5.1).

### 5.3.1 *Simple Transitive Verbs*

Simple transitive verbs form a relatively small group of verbs (about 15% of verbs), and are a closed class of verbs in modern Dazaga. Simple transitive verbs are formed by a prefixed object agreement marker, a prefixed or suffixed subject agreement marker (depending on the person of the subject), a root, a plural marker (if relevant), and a reflexive marker (if relevant). If a verb ends with an obstruent, a final epenthetic [+high, +back] vowel is added (its [ATR] value dependent on the [ATR] value of the verb root). The affixes of simple transitive verbs and their order are presented in Table 5.8. The perfective aspect forms are used as the basis for all charts in §5.3 and §5.4 because they are the basic, unmarked forms. Other aspects (cf. §5.6) are formed by adding suffixes to the unmarked forms. In Table 5.8, the third person subject slot is in complementary distribution with the reflexive and first and second person subject slots.

TABLE 5.8 *Position class chart for simple transitive (perfective) verbs*

Object	3 Subject	Root	Refl	P	1 & 2 Subject
d- ‘1.OBJ’	j- ‘3’	—	-t ‘REFL’	-t ‘P’	-ɾ ‘1’
n- ‘2.OBJ’					-m ‘2’
Ø- ‘3.OBJ’					

Several things should be noted about the affixes in Table 5.8. First, the phonetic realization of the third person subject marker /j/ is somewhat irregular. With some verbs it appears only as voicing of a root initial obstruent (e.g. Ø-j-*kárò* ‘3.OBJ-3-braid’/‘he braided it’ is phonetically realized as [gárò]), but with

14 Kellenberger (2008) uses the terms ‘integrated’ verbs and ‘detached’ verbs to describe what I call ‘simple verbs’ and ‘light verb constructions’, respectively. Jakobi (2011) suggests light verb constructions as a better analysis than ‘detached’ verb roots.

other verbs it is not phonetically manifested. Second, any root-final consonant assimilates to the voicelessness of the plural morpheme *-t*, and the plural morpheme assimilates to the place of articulation of the root-final consonant (e.g. the sequence /gt/ becomes [kk]; cf. §3.6.1). Third, the plural morpheme *-t* is not specifically associated with the subject or the object, but can be interpreted as pluralizing one or the other, or both simultaneously (as context allows/ requires). This ‘floating plurality’ is illustrated in (134), where one verb can have three possible readings.<sup>15</sup>

- (134) tááppòm  
 d-báb-t-m  
 1.OBJ-hit-P- 2  
 ‘You (s) hit us.’  
 ‘You (p) hit us.’  
 ‘You (p) hit me.’

Fourth, when the plural marker *-t* is used to pluralize a third person object, marked Ø-, the plural marker is not phonetically realized. Fifth, in reflexive forms, the reflexive morpheme occurs, but (S<sub>a</sub>) subject agreement morphemes do not co-occur with the reflexive morpheme (cf. §5.8.2 for more on reflexives, which pattern as S<sub>p</sub> intransitives).

A full paradigm of a simple transitive verb (using the root *báb* ‘hit’) is given in Table 5.9, illustrating the possible combinations of affixes. Morphemes that are not phonetically realized are placed in parentheses, which do not here

TABLE 5.9 (*Perfective*) simple transitive verbs

Root: <i>báb</i> ‘hit’		1O	2O	3O	3S	Root	Refl	P	1S	2S	EP
dááppò	I hit myself	d-				báb	-t				ò
náàr	I hit you		n-			báb			-r		
bààr	I hit him			Ø-		báb			-r		
(not grm)	*I hit us										
nááppìr	I hit you (p)		n-			báb		-t	-r		
baar	I hit them			Ø-		báb		(-t)	-r		

15 Jakobi & Crass (2004:71–2) note the same ambiguity of reference of the plural marker in verbs in Beria, though the plural morpheme in Beria is tone, rather than a segmental morpheme.

Root: báb 'hit'		1O	2O	3O	3S	Root	Refl	P	1S	2S	EP
táàm	you hit me	d-				báb				-m	
ntááppò	you hit yourself		n-			báb	-t				ò
báàm	you hit him			Ø-		báb				-m	
tááppòm	you hit us	d-				báb		-t		-m	
(not grm)	*you hit you										
báàm	you hit them			Ø-		báb		(-t)		-m	
dʒááò	he hit me	d-			j-	báb					ò
ñfjááò	he hit you		n-		j-	báb					ò
wááò	he hit him			Ø-	j-	báb					ò
tááptò	he hit himself			Ø-	j-	báb	-t				ò
dʒááppò	he hit us	d-			j-	báb		-t			ò
ñfjááppò	he hit you (p)		n-		j-	báb		-t			ò
wááò	he hit them			Ø-	j-	báb		(-t)			ò
(not grm)	*we hit me										
nááppìr	we hit you		n-			báb		-t	-r		
bàppír	we hit him			Ø-		báb		-t	-r		
dááptódò	we hit ourselves	d-				báb	-t	-t			ò
nááppìr	we hit you (p)		n-			báb		-t	-r		
bàppír	we hit them			Ø-		báb		-t	-r		
tááppòm	you (p) hit me	d-				báb		-t		-m	
(not grm)	*you (p) hit you										
bàppóm	you (p) hit him			Ø-		báb		-t		-m	
tááppòm	you (p) hit us	d-				báb		-t		-m	
ntááptódò	you (p) hit yrslvs.		n-			báb	-t	-t			ò
bàppóm	you (p) hit them			Ø-		báb		-t		-m	
dʒááppò	they hit me	d-			j-	báb		-t			ò
ñfjááppò	they hit you		n-		j-	báb		-t			ò
wáppò	they hit him			Ø-	j-	báb		-t			ò
dʒááppò	they hit us	d-			j-	báb		-t			ò
ñfjááppò	they hit you (p)		n-		j-	báb		-t			ò
wáppò	they hit them			Ø-	j-	báb		-t			ò
tááptódò	they hit thmslvs.			Ø-	j-	báb	-t	-t			ò

indicate optionality. Subject and object combinations which are not grammatical are indicated as such. It is difficult to determine with certainty if these forms are actually ungrammatical, or simply semantically implausible.

In the table above, several items should be noted. First, the phonetic shape of the root can change considerably depending on the phonological environment. Thus, the root occasionally occurs in a near-original form, as in *bàppír* ‘we hit him/them’, where the only change to the root is devoicing of the root-final /b/ before the voiceless plural marker /t/. At other times, the root is almost totally obscured, remaining as only a long vowel [aa], as in *náàr* ‘I hit you’, where both the root-initial and root-final /b/ segments have dropped out, causing compensatory lengthening of the nucleus. Second, when the only plural argument is a third person object, represented by the Ø- morpheme, the plural marker /t/ associated with the plural Ø- morpheme does not surface in the phonetic form (indicated in the above table by parentheses). The result is that verbs whose only difference is the number of a third person object are identical to each other. Third, and similarly, when two verbs each contain one plural argument and the persons of the subject and object of one verb match the persons of the subject and object of the second verb, the two verbs will be identical to each other, since the plural morpheme can be associated with either the subject or the object or both simultaneously (cf. (134)). Fourth, the reflexive forms are formed by using an object marker of the person of the sole participant and a reflexive morpheme in lieu of the subject morpheme. Fifth, forms that include subjects and objects of the same person (for first and second person only), but different number, are not grammatical (the same is true of transitive light verb constructions—cf. §5.3.2).

Examples of other simple transitive verbs are given in Table 5.10. For the sake of simplicity and space, only the forms with third person singular objects (Ø-) are given. Verb roots and their glosses are given in the top row. Person and number labels in the left-most column correspond to the person and number of the subject of each verb in the row.

TABLE 5.10 *Examples of (perfective) simple transitive verbs*

	kín	‘crush’	dák	‘want’	té	‘catch’
1s	kínîr	‘I crushed it’	dàgîr	‘I wanted it’	táàr	‘I caught it’
2s	kìnûm	‘you crushed it’	dàgôm	‘you wanted it’	táàm	‘you caught it’
3s	gínù	‘he crushed it’	dágò	‘he wanted it’	déi	‘he caught it’
1p	kintîr	‘we crushed it’	dàkkîr	‘we wanted it’	tédîr	‘we caught it’
2p	kintûm	‘you (p) crushed it’	dàkkôm	‘you (p) wanted it’	tédûm	‘you (p) caught it’
3p	gintù	‘they crushed it’	dákkò	‘they wanted it’	dédù	‘they caught it’



### 5.3.2 *Transitive Light Verb Constructions*

A second group of transitive verbs differs from simple transitive verbs in two ways. First, and most importantly, this second group of transitive verbs are light verb constructions (cf. Jakobi 2011:88; Dimmendaal 2009a), formed by attaching a meaning carrying root, the ‘preverb’ (or ‘coverb’), to the beginning of an inflected form of a (semantically light) simple root, usually identified as *n* ‘to say’ (cf. Cyffer 1981a:164; Bryan 1971:228; Lukas 1953:79). Such light verb constructions are a common feature of Nilo-Saharan languages generally (Dimmendaal 2009b:774). A second difference, minor and difficult to explain, is the placement in these light verb constructions of the reflexive marker. Rather than occurring immediately before the plural marker (as in simple transitive reflexives), the reflexive marker in transitive light verb reflexives occurs immediately after any object prefixes (cf. §5.8.2).<sup>16</sup>

A light verb construction (LVC) is a type of complex predicate in which a semantically ‘light’ verb, which corresponds in form and inflection to an existing semantically full ‘main’ verb, joins with another predication element (the ‘preverb’ or ‘coverb’) to form a single predication (Butt 2010). LVCs share many characteristics with serial verb constructions (SVCs; cf. Kroeger 2004:229–230), in their expression of eventhood, their morphology, and their syntax. However, LVCs may combine a light verb with predication elements from several categories (e.g. a verb, noun, adjective), whereas SVCs always involve two (or more) verbs. In Dazaga, another differentiating characteristic is that LVCs only have one set of argument agreement and plurality morphemes, whereas these features are redundantly marked on both verbs in an SVC (cf. §8.3).

LVCs (traditionally Class 3 verbs) comprise the vast majority of verbs in my database (78.9%), and all new verbs, such as the Arabic borrowing *fāhàmtí* ‘to understand’, that come into Dazaga are formed as LVCs (cf. LeCoeur & LeCoeur 1956:73), a characteristic function of LVCs (cf. Butt 2010:52).<sup>17</sup>

Because transitive LVCs are built on the simple verb root *n* ‘to say’, used as a light verb, they use the same subject and object agreement markers as do simple transitive verbs. To form a transitive LVC, the light verb *n* is conjugated for subject and object person agreement, number, aspect, and mood. Then the preverb root, which gives the semantic content to the LVC, is attached to the

16 Interestingly, in Tedaga, the reflexive marker consistently occurs immediately before the third person subject slot (Ortman 2003:138–139), as in Dazaga light verb constructions (traditionally Class 3), but unlike Dazaga simple verbs (traditionally Class 2).

17 Not surprisingly, similar claims about how borrowed verbs are brought into the language have been made for Tedaga (Ortman 2003:111), Zaghawa/Beria (Wolfe 2001:41), and Kanuri (Cyffer 1998a:34).

beginning of the fully conjugated light verb. The LVC is a single phonological (and grammatical) word, as indicated by tone patterns and [ATR] harmony across the LVC.<sup>18</sup> As such, the preverb root is always directly attached to the light verb, and no separation of these elements of the LVC is possible in any syntactic configuration of a clause.

The affixes of transitive LVCs and their order are presented in Table 5.11. I have identified the light verb as 'LV'. For the sake of comparison with simple transitive verbs, I have presented the affixes as prefixing or suffixing to the LV, and not to the preverb root. Note also that the position of the reflexive morpheme is different for transitive LVCs than for transitive simple verbs. As in Table 5.8, the subject morphemes and reflexive morpheme in Table 5.11 are in complementary distribution.

TABLE 5.11 *Position class chart for (perfective) transitive LVCs*

Preverb	Object	Refl. and 3 Subject	LV	P	1 & 2 Subject
—	d- '1.OBJ'	t- 'REFL'	n	-t 'P'	-r '1'
	n- '2.OBJ'	j- '3'			-m '2'
	Ø- '3.OBJ'				

The comments on Table 5.12 are largely applicable to transitive LVCs as well, particularly in terms of the association of the plural morpheme with subjects and/or objects, the absence of the plural marker when it is associated with the third person object morpheme Ø-, and the complementary distribution of the reflexive morpheme with subject agreement morphemes (but in a different position than in reflexive simple verbs).

However, there are a few differences that should be noted. First, the phonetic realization of the third person subject marker /j/ is fairly predictable for LVCs, since it interacts primarily with first and second person object markers or with the final segment(s) of the preverb root (when the object is the third person marker Ø-). The patterns of its realization are summarized in Table 5.12.

18 Interestingly, Wolfe (2001:67) claims that 'Class 3' verbs in Zaghawa/Beria are not single phonological words, based on reasons that are not supported for Dazaga in my data.

TABLE 5.12 *Phonetic realization of third person subject agreement marker*

Phonemic input	Phonetic output
/d-j/	[dʒɪ / dʒi]
/n-j/	[nʃɪ / nʃi]
/C <sub>[+son]</sub> t-j/	[C <sub>[+son]</sub> ʧɪ / C <sub>[+son]</sub> ʧi]
/V-j/	[Vɪ / Vi]
/Vt-j/	[Vʃɪ / Vʃi]
/kt-j/	[kɪ / ki]
/pt-j/	[pʃɪ / pʃi]
/st-j/	[ʃɪ / ʃi]

Second, since the plural morpheme *-t* always follows the light verb root *n*, the plural morpheme always retains its underlying form and is phonetically realized as [t]. Third, when the subject is third person singular (and the form is not reflexive), the light verb *n* is not phonetically realized, since no suffixes are employed and the light verb therefore comes at the end of the word. If another morpheme (such as aspect or mood) is suffixed to a (perfective) third person singular form, the latent *n* reappears (e.g. [dɪlɛɪ] ‘he imitated him’ + [gɪ] ‘1PFV’ → [dɪlɛɪgɪ] ‘he will imitate him’, where the /n/ reappears to combine with the /g/ to produce [ŋ]).

A full paradigm of a transitive LVC (using the root *dilɛ* ‘imitate’) is given in Table 5.13, illustrating the possible combinations of affixes. Morphemes that are not phonetically realized are placed in parentheses, which do not here indicate optionality. Subject and object combinations which are not grammatical are indicated as such.

TABLE 5.13 *(Perfective) transitive LVCs*

Root: <i>dilɛ</i> ‘imitate’		Prvb	1O	2O	3O	Refl	3S	LV	P	1S	2S	EP
dilɛddɪn	I imitated myself	dilɛ	d-			t-		n				
dilɛnɪmɪr	I imitated you	dilɛ		n-				n		-r		
dilɛnɪr	I imitated him	dilɛ			Ø-			n		-r		
(not grm)	*I imitated us											
dilɛnɪntɪr	I imitated you	dilɛ		n-				n	-t	-r		
dilɛnɪr	I imitated them	dilɛ			Ø-			n	(-t)	-r		

TABLE 5.13 (Perfective) transitive LVCs (cont.)

Root: dilé 'imitate'		Prvb	1O	2O	3O	Refl	3S	LV	P	1S	2S	EP
dilédinòm	you imitated me	dilé	d-					n			-m	
diléntìn	you imitated yr.	dilé		n-		t-		n				
dilénnòm	you imitated him	dilé			Ø-			n			-m	
diléddintòm	you imitated us	dilé	d-					n	-t		-m	
(not grm)	*you imitated you											
dilénnòm	you imitated them	dilé			Ø-			n	(-t)		-m	
diléḏḓì	he imitated me	dilé	d-				j-	(n)				
diléntḥì	he imitated you	dilé		n-			j-	(n)				
diléì	he imitated him	dilé			Ø-		j-	(n)				
diléḏḓìn	he imitated hims.	dilé			Ø-	t-		n				
diléḏḓìntò	he imitated us	dilé	d-				j-	n	-t			ò
diléntḥìntò	he imitated you	dilé		n-			j-	n	-t			ò
diléì	he imitated them	dilé			Ø-		j-	(n)	(-t)			ò
(not grm)	*we imitated me											
dilénnìntìr	we imitated you	dilé		n-				n	-t	-r		
diléntìr	we imitated him	dilé			Ø-			n	-t	-r		
diléddintò	we imitated our.	dilé	d-			t-		n	-t			ò
dilénnìntìr	we imitated you	dilé		n-				n	-t	-r		
diléntìr	we imitated them	dilé			Ø-			n	-t	-r		
diléddintòm	you imitated me	dilé	d-					n	-t		-m	
(not grm)	*you imitated you											
diléntòm	you imitated him	dilé			Ø-			n	-t		-m	
diléddintòm	you imitated us	dilé	d-					n	-t		-m	
diléntòntò	you imitated yr.	dilé		n-		t-		n	-t			ò
diléntòm	you imitated them	dilé			Ø-			n	-t		-m	
diléḏḓìntò	they imitated me	dilé	d-				j-	n	-t			ò
diléntḥìntò	they imitated you	dilé		n-			j-	n	-t			ò
diléntò	they imitated him	dilé			Ø-		j-	n	-t			ò
diléḏḓìntò	they imitated us	dilé	d-				j-	n	-t			ò
diléntḥìntò	they imitated you	dilé		n-			j-	n	-t			ò
diléntò	they imitated thm.	dilé			Ø-		j-	n	-t			ò
diléddintò	they imitated themselves	dilé			Ø-	t-		n	-t			ò

As the table above demonstrates, there are many similarities between transitive LVCs and simple transitive verbs. However, whereas the form of the simple transitive roots is sometimes obscured through morphophonemics, the pre-verb root of a transitive LVC is consistently retained.

Like simple transitive verbs, when the only plural argument of a transitive LVC is a third person object, represented by the  $\emptyset$ - morpheme, the plural marker *-t* associated with the plural  $\emptyset$ - morpheme does not surface in the phonetic form (indicated in the table above by parentheses). The result is that verbs whose only difference is the number of a third person object are phonetically identical to each other. Additionally, when two transitive LVCs each contain one plural argument and the persons of both arguments are the same, the two verbs will be identical to each other, as demonstrated in (135), since the plural morpheme can be associated with either the subject or the object or both simultaneously.

- (135)    *dilédintòm*  
           *dilé-d-n-t-m*  
           imitate-1.OBJ-LV-P-2  
           ‘You (s) imitated us.’  
           ‘You (p) imitated us.’  
           ‘You (p) imitated me.’

As with simple transitive verbs, the reflexive forms of transitive LVCs are formed by using an ‘object’ marker of the person of the sole participant and a reflexive morpheme in lieu of the usual subject morpheme (thus patterning as *S<sub>p</sub>* verbs; cf. §5.5.2 and §5.8.2). Finally, forms that include subjects and objects of the same person (for first and second person only) but different numbers are not grammatical.

Examples of other simple transitive verbs are given in Table 5.14. For the sake of simplicity and space, only the forms with third person singular objects ( $\emptyset$ -) are given. Verb roots and their glosses are given in the top row. Person and number labels in the left-most column correspond to the person and number of the subject of each verb in the row.

#### 5.4 Agreement Morphology of Ditransitive Verbs

Ditransitive verbs use the same morphology as transitives, and exhibit the same subgrouping of simple ditransitives and ditransitive LVCs. However, because

TABLE 5.14 *Examples of (perfective) transitive LVCs*

	lóp	'knead'	mól	'press'
1s	lómòr	'I kneaded it'	míllìr	'I pressed it'
2s	lómòm	'you kneaded it'	míllòm	'you pressed it'
3s	lópǽ	'he kneaded it'	míǽ	'he pressed it'
1p	lómpòr	'we kneaded it'	míltàr	'we pressed it'
2p	lómpòm	'you (p) kneaded it'	míltòm	'you (p) pressed it'
3p	lópǽntò	'they kneaded it'	míǽntò	'they pressed it'

ditransitives (like transitives) can only agree with one object, the object prefix variously agrees with one or the other of the ditransitive objects. This variation is based on a combination of the persons and semantic roles of the objects. Thus, if there is only one first or second person object, it is marked on the verb with the object agreement marker, regardless of semantic role. If both objects are first or second person or both third person, the recipient is marked on the verb with the object agreement marker. These patterns are described in greater detail in §6.3.3, on the syntax of ditransitive clauses.

At this point I merely present example (136) to illustrate that the object agreement prefix does not always agree with what English speakers would normally consider the 'direct object' constituent.

- (136) kútùb nínìr  
 kútùb n-ín-r  
 book 2.OBJ-give-1  
 'I gave a book to you.' / 'I gave you a book.'  
 \*'I gave you to a book.'<sup>19</sup>

## 5.5 Agreement Morphology of Intransitive Verbs

Intransitive verbs use the same set of agreement morphemes as transitive verbs, presented in Table 5.7, above, and reproduced here as Table 5.15. However, as mentioned in §5.1, intransitive verbs exhibit a pattern of split-intransitivity,

19 Note that this second reading is ungrammatical, and not simply semantically strange.

variously marking their single arguments with morphemes used by transitive verbs as object and subject agreement markers. I label as ‘S<sub>p</sub>’ those intransitive verbs that mark their single arguments with the same morphemes used to mark transitive objects. ‘S<sub>a</sub>’ refers to those intransitive verbs that mark their single arguments with the same morphemes used to mark transitive subjects (cf. §5.2.2).

TABLE 5.15      *Subject agreement morphemes of intransitive verbs*

Pers.	S <sub>p</sub>	S <sub>a</sub>
1	t/d-	-r
2	n-	-m
3	Ø-	j-

5.5.1      S<sub>a</sub> (*Intransitive*) Verbs

S<sub>a</sub> verbs, like transitive verbs (cf. §5.3), may be subdivided into simple S<sub>a</sub> verbs (traditionally Class 2 intransitives) and LVC S<sub>a</sub> verbs (traditionally Class 3 intransitives).

Simple S<sub>a</sub> verbs are formed exactly as simple transitives, except that no object agreement prefixes are used, and reflexive forms are (unsurprisingly) impossible. The order of morphemes in a (perfective) simple S<sub>a</sub> verb is presented in Table 5.16, and a fully conjugated (perfective) simple S<sub>a</sub> verb is given in Table 5.17. The third person subject agreement marker is in complementary distribution with the first and second person subject markers.

TABLE 5.16      *Position class chart for simple S<sub>a</sub> (perfective) verbs*

3 Subject	Root	P	1 & 2 Subject
j- ‘3’	—	-t ‘P’	-r ‘1’ -m ‘2’

TABLE 5.17 *(Perfective) simple S<sub>a</sub> verbs*

	Root: káz 'laugh'		3S	Root	P	1S	2S	EP
1S	kàzîr	I laughed		káz		-r		
2S	kàzûm	you laughed		káz			-m	
3S	gázù	he laughed	j-	káz				ù
1P	kàssîr	we laughed		káz	-t	-r		
2P	kàssûm	you (p) laughed		káz	-t		-m	
3P	gássù	they laughed	j-	káz	-t			ù

The comments about simple transitive verbs (cf. §5.3.1) are largely applicable to simple S<sub>a</sub> verbs as well. The phonetic realization of the third person subject marker /j/ is again somewhat irregular. Additionally, the root-final consonant assimilates to the voicelessness of the plural morpheme *-t*, and the plural morpheme assimilates to the place of articulation of the root-final consonant. However, unlike with simple transitive verbs, the association of the plural morpheme *-t* is not ambiguous with intransitive verbs, since it cannot be interpreted as pluralizing the object.

Examples of the full paradigms of simple S<sub>a</sub> verbs are given in Table 5.18. Verb roots and their glosses are given in the top row. Person and number labels in the left-most column correspond to the person and number of the subject of each verb in the row.

TABLE 5.18 *Examples of (perfective) simple S<sub>a</sub> verbs*

	jíd	'cry'	kór	'appear'
1S	jídîr	'I cried'	kórôr	'I appeared'
2S	jíròm	'you cried'	kórôm	'you appeared'
3S	ǰîrò	'he cried'	góróò	'he appeared'
1P	jítîr	'we cried'	kórókòr	'we appeared'
2P	jíttòm	'you (p) cried'	kórókòm	'you (p) appeared'
3P	ǰíttò	'they cried'	górókò	'they appeared'



The second subgroup of  $S_a$  verbs are the LVC  $S_a$  verbs (hereafter simply ‘intransitive LVCs’ since there are no LVC  $S_p$  verbs). Intransitive LVCs are formed like transitive LVCs, but without object agreement markers or reflexive markers. The order of morphemes in a (perfective) intransitive LVC is presented in Table 5.19, and a fully conjugated intransitive LVC is presented in Table 5.20. In Table 5.19, ‘preverb’ indicates the meaning-carrying morpheme, and ‘LV’ indicates the position of the light verb root  $n$ . The third person subject marker is in complementary distribution with the first and second person subject markers.

TABLE 5.19 *Position class chart for (perfective) intransitive LVCs*

Preverb	3 Subject	LV	P	1 & 2 Subject
—	j- ‘3’	n	-t ‘P’	-r ‘1’ -m ‘2’

TABLE 5.20 *(Perfective) intransitive LVCs*

	Root: bigiré ‘age’		Root	3S	LV	P	1S	2S	EP
1s	bigirénìr	‘I aged’	bigiré		n		-r		
2s	bigirénòm	‘you aged’	bigiré		n			-m	
3s	bigiréi	‘he aged’	bigiré	j-	(n)				o
1p	bigiréntìr	‘we aged’	bigiré		n	-t	-r		
2p	bigiréntòm	‘you (p) aged’	bigiré		n	-t		-m	
3p	bigiréintò	‘they aged’	bigiré	j-	n	-t			o

As with transitive LVCs (cf. §5.3.2), the various allomorphs of the third person subject agreement marker are fairly predictable (cf. Table 5.13). Additionally, when the LV root  $n$  is the last morpheme in the verb (in third person singular forms), it is not phonetically realized but does reappear if another suffix (such as an aspect marker) is attached. Like other intransitives, the plural marker can only be taken as pluralizing the subject.

Examples of the full paradigms of intransitive LVCs are given in Table 5.21. Verb roots and their glosses are given in the top row. Person and number labels in the left-most column correspond to the person and number of the subject of each verb in the row.

TABLE 5.21 *Examples of (perfective) intransitive LVCs*

	jért	‘get up’	bú	‘fly, take flight’
1s	jèrdâr	‘I got up’	bùnûr	‘I flew’
2s	jèrôm	‘you got up’	bùnûm	‘you flew’
3s	jèrfî	‘he got up’	bûi	‘he flew’
1p	jértâr	‘we got up’	buntûr	‘we flew’
2p	jértôm	‘you (p) got up’	buntûm	‘you (p) flew’
3p	jèrfîntô	‘they got up’	bùntû	‘they flew’

### 5.5.2 S<sub>p</sub> (*Intransitive*) Verbs

S<sub>p</sub> (intransitive) verbs (traditionally Class 1) form just 3.9% (twenty-one) of the verbs in my database, and are exhaustively listed in Table 5.24, at the end of this section. They are generally considered the ‘oldest’ group of verbs in Dazaga (e.g. Lukas 1953:62),<sup>20</sup> and include many basic verbal ideas such as the positive and negative existential predicates and verbs like *tèrí* ‘to go’, *tìgîĩ* ‘to become, happen’, and *tìrkàní* ‘to walk’. Like simple transitives and simple S<sub>a</sub> verbs, S<sub>p</sub> are a closed class of verbs.

Unlike the S<sub>a</sub> verbs, the agreement markers for the single argument of S<sub>p</sub> verbs matches the object agreement markers of transitive verbs. This is demonstrated below, in Table 5.22.

20 This claim is difficult—perhaps impossible—to substantiate. It stems from the ‘basic’ semantic nature of verbs included in this group (such as ‘to be’ and ‘to not be’), its characterization as a closed class, as well as the group’s disappearance from Kanuri (cf. Cyffer 2007:1108).

TABLE 5.22 *S<sub>p</sub> subject and transitive object agreement markers*

Pers.	Single argument of S <sub>p</sub> verbs	Object of transitive
1	t/d-	t/d-
2	n-	n-
3	Ø-	Ø-

The split intransitive system that results from the difference in marking of the single arguments of S<sub>a</sub> and S<sub>p</sub> verbs is most likely a relic of a formerly fully ergative/absolutive system of argument agreement marking such as is still exhibited by Tedaga (cf. Ortman 2003).

The order of morphemes in a (perfective) S<sub>p</sub> verb is given in Table 5.23.

TABLE 5.23 *Position class chart for (perfective) S<sub>p</sub> verbs*

Subject	Root	P
d- '1'	—	-t 'P'
n- '2'		
Ø- '3'		

As with simple transitives and simple S<sub>a</sub> verbs, the root-final consonant assimilates to the voicelessness of the plural morpheme *-t*, and the plural morpheme assimilates to the place of articulation of the root-final consonant. Since S<sub>p</sub> verbs do not have objects, the plural morpheme *-t* is unambiguously associated with the subject.

A complete list of the S<sub>p</sub> verbs in my database is presented in Table 5.24. Each verb is listed in the 'nominal' form (roughly functionally equivalent to an infinitive). The three (syntactically) transitive verbs whose morphology matches that of S<sub>p</sub> intransitive verbs are listed after the twenty-one S<sub>p</sub> intransitive verbs.

TABLE 5.24 *S<sub>p</sub> verbs (exhaustive list)*

Verb	Gloss	Verb	Gloss
fíí	'be, exist'	tìrkàní	'walk'
méní	'not be, not exist'	tòfòrí	'enter'
mèí	'climb'	tùgùrí	'spend the day'
mìfí	'sit, rest, stay'	tòkòfí	'appear'
nìrí	'arrive, come'	tòfí	'cease, finish'
ṛòjì	'fight'	tòòfí	'be born'
tààní	'fall'	tùùfí	'enter'
tèrí	'leave, go'	tùwèí	'climb'
tìgìnèsí	'separate'	tòṛòfí	'try'
tìgìfí	'become, happen'	fínhètí	'forget' (trans.)
tìlìí	'fight'	màfí	'hear' (trans.)
tàrdéí	'struggle'	tífí	'repay' (trans.)

## 5.6 Aspect

Dazaga verbs exhibit three aspects which are distinguished by the presence or absence of aspectual morphemes. These three aspects are perfective, imperfective, and progressive.<sup>21</sup> In this section, I describe only what I consider to be true aspects; other categories such as mood (§5.7) and voice (§5.8) are described separately. In the previous descriptive work of LeCoeur & LeCoeur (1956) and Lukas (1953), these categories have been lumped together as *les aspects* and *Aktionsarten und Zeiten*, respectively. Though the terminology in LeCoeur & LeCoeur (1956) and Lukas (1953) is not always transparent to the modern linguist, a comparison of the forms described yields the following equivalences:

21 Jakobi & Crass (2004:53) posit two aspects for Beria, namely, 'perfective' (*perfectif*) and 'imperfective' (*imperfectif*).

TABLE 5.25 Correspondence of verbal categories in the literature

Present Study	LeCoeur & LeCoeur (1956)	Lukas (1953)
perfective	parfait (pp. 65–67)	Aorist (pp. 63–85)
imperfective	continu (pp. 67–68)	Progressiv (pp. 63–85)
progressive	—	<i>i</i> -Form (?–p. 95)
—	—	Perfekt (pp. 94–95)
optative	optatif (pp. 68–69)	Optativ (pp. 85–89)
contingent	conditionnant (pp. 70–71)	Temporal (pp. 95–98)
imperative	impératif (p. 69)	Imperativ (pp. 98–102)
—	—	Futur (pp. 89–92)

### 5.6.1 *Perfective*

Perfective aspect is morphologically unmarked in contrast to other aspects, which are overtly marked. Perfective aspect does not have a specific time reference but views an event as a whole. It is the aspect typically used to relate past events in historical narrative, as in (137).

- (137)    bíní    dìgìsá    fǽúú    tàní    àsàrdír  
           bíní    dìgìsá    fǽúú    tàní    asard-r  
           today    days    two    1S    miscarry-1  
           ‘Two days ago, I miscarried.’ [lit. ‘Today, two days (ago), I miscarried.’]

However, perfective aspect can also be used to express events or states in the present, as illustrated in (138).<sup>22</sup>

- (138)    kògʷójè    àŋkír    dàgír  
           kògʷójè    àŋkír    Ø-dák-r  
           chicken    male    3.OBJ-want-1  
           ‘I want a rooster [lit. ‘male chicken’].’

22 I have not been able to determine any difference in meaning/interpretation between ‘present’ perfectives, such as (138), and ‘present’ imperfectives, such as (147).

### 5.6.2 Imperfective

Imperfective aspect is marked by the suffix *-gì*, which is suffixed to the base form of the verb. The imperfective verb forms have a wide range of uses. In general terms, imperfective verbs express predicates which are presently true, enduringly true, customarily true, hypothetically true, true of the future, or express the purpose of another action.

The enduringly true, or 'gnomic' predicates are illustrated in (139) and (140):

- (139) *diskí=rù bárá àdđír Ø-írì-gì*  
 noon=DAT after mid.afternoon 3-come-IPFV  
 'After noon, mid afternoon comes.'
- (140) *bátà ɸjòó kórérò sélté góìṅì*  
*bátà ɸjòó kóré=rò sélté gó-Ø-j-n-gì*  
 cloth white quick=DAT filth take-3.OBJ-3-LV-IPFV  
 'White cloth quickly becomes dirty.'

The imperfective aspect is also used in clauses that express how things are done, or 'procedural' clauses. This is illustrated in (141) and (142).

- (141) *jégè kèwéò èrkèná-rù dómpògì*  
*jégè kèwé=ò èrkèní-a=rù Ø-j-tóm-t-gì*  
 house mat=GEN.S palm.slat-P=DAT 3.OBJ-3-make-P-IPFV  
 'They build mat houses with palm slats.'
- (142) *dòṣsà-rò kàwá dómpògì*  
*dòṣsò-a=rò kèwé-a Ø-j-tóm-t-gì*  
 palm.leaf-P=DAT mat-P 3.OBJ-3-make-P-IPFV  
 'They make mats with palm leaves.'

The imperfective aspect is used to express events that are future. Imperfective aspect does not itself encode future time reference. Rather, the future reference is derived from an adverbial word or phrase or from the context. The 'future' use of the imperfective aspect is illustrated in examples (143) and (144).

- (143) *ɸíkí ɸíí àwòré kàsógò dùrtúgì*  
*ɸíkí ɸíí àwòré kàsógò d-tùr-tú-gì*  
 tomorrow not day.after.tomorrow market 1-go-P-IPFV  
 'Not tomorrow, (but) the day after tomorrow, we (will) go (to) market.'



- (149) jôm nááná èrĩĩ kúrjárò kàrànr̃ jénìrìgì  
 jôm nááná èrĩĩ kúrĩ-á=rò Ø-karan-r Ø-jén-r-gì  
 day every story child-P=DET 3.OBJ-read-1 3.OBJ-give-1-IPFV  
 'Every day, I read a story (to my) children.'

- (150) kálgál sómmà sáà fòúrù jèrdírgì  
 kálgál sòn=mà sáà fòú=rù jért-r-gì  
 correct 3S.POSS=DET hour five=DAT get.up-1-IPFV  
 'Usually, I get up at five o'clock.'

Finally, the imperfective aspect can be used to express the purpose of another action (which may or may not be in the imperfective aspect). This purposive use of the imperfective is illustrated in (151) and (152).

- (151) mèrégà gárdìr kîi dùrtúgì  
 mèré=gà Ø-gárd-r kîi d-túr-t-gì  
 3S=ACC 3.OBJ-await-1 with 1-go-P-IPFV  
 'I waited for him, to go with (him).' / 'I waited with him, for us to go together.'

- (152) jégà sómmà dálìr kàllàhànr̃gì  
 jégè=a sòm=mà Ø-dáll-r kàllàhà-Ø-n-r-gì  
 house=DET 3S.POSS=DET 3.OBJ-pass.by-1 greet-3.OBJ-LV-1-IPFV  
 'I passed by his house (to) greet him.'

### 5.6.3 *Progressive*

Progressive aspect is signaled by the presence of the suffix *-í*, which is suffixed to the base (unmarked) form of the verb. Progressive aspect indicates an event which is ongoing at the time of utterance. A verb with progressive aspect is always followed by an existential predicate in a periphrastic construction. The verb with progressive aspect and the existential predicate share the same subject person and number values (the copula does not have object agreement). This construction and usage are illustrated in (153) and (154).

- (153) bàtátà bùrříní řĩĩ  
 bàtátà búrt-j-n-í Ø-řĩ(g)  
 bat take.off-3-LV-PROG 3-be  
 'The bat (animal) is taking off/jumping into flight.'



- (154)    ìí              bìllíò              ǽǽdí              ǽǽkkí  
           ìí              bìllí=ò              Ø-j-jé-t-í              Ø-ǽǽg-t  
           water      pond=GEN.S    3.OBJ-3-drink-P-PROG    3-be-P  
           ‘They are drinking water from the pond.’

The obligatory co-occurrence of the existential predicate with the progressive aspect morpheme shows a syntactic asymmetry with the patterns of perfective and imperfective aspect. Further research is required to determine if what I have called progressive aspect should be considered a truly aspectual distinction.

## 5.7 Mood

In this section I group together the description of several phenomena that are typically categorized as ‘mood’, though they are morphologically encoded in disparate ways, from zero marking (indicative mood), to distinct stem forms (imperative mood), to affixation (optative mood), to cliticization (contingent mood). Thus the grouping of structures in this section is based more on semantics (structures that encode meanings typically categorized as moods) than on parallels in morphological or syntactic structure.

### 5.7.1 *Indicative*

The indicative is the unmarked mood. If a form is not specifically marked as contingent, optative, or imperative, and the clause is not marked as interrogative, then the verb and clause are in the indicative mood (cf. Chapter 6, and §7.1). The three aspects discussed in §5.6, above, all appear in the indicative and interrogative moods (but not in the other moods).

### 5.7.2 *Interrogative*

Interrogative mood is signalled by the presence of *wh*-words for content questions and the yes/no question marker *-ra* for yes/no questions. A clause is not interpreted as interrogative apart from the presence of one of these markers (cf. §7.5.1 and §7.5.2). An interrogative clause formed by the use of a question word is illustrated in (155).

- (155)    bàrán      sálèì=ɲà      kɔ́ɔ  
           teapot    (name)=GEN.S    where  
           ‘Where (is) Saley’s teapot?’

The use of the yes/no marker *-ra* is illustrated in (156).

- (156)    bùltírùm    díró    íí    ɸíírà  
           bùltírùm    díró    íí    Ø-ɸí(g)=rà  
           cup            in    water    3-be=YNQ  
           ‘Is there water in the cup?’

### 5.7.3 *Contingent*

The clitic =ò marks ‘contingent’ mood. This clitic attaches to the verb of a subordinate clause upon which the realization of the main clause is either logically or temporally contingent. Logical and temporal contingency are illustrated in (157) and (158), respectively.

- (157)    gʷòní    nómmà    áríí    dànnó  
           gʷòní    nóm=mà    áríí    Ø-j-téi-ní=ò  
           camel    2S.POSS=DET    mark    3.OBJ-3-have-NEG=CONTG  
           wúràì            gòntígì  
           wúrà-a=i        gɔ-Ø-j-n-t-gì  
           thief-P=ERG    take-3.OBJ-3-LV-P-IPFV  
           ‘If your camel doesn’t have a brand mark, thieves will take (it).’

- (158)    kée            bí            ɸílóò                    gáli    ɸíí  
           kée            bí            ɸílí=ò                    gáli    ɸíí  
           circumcision    season    rainy.season=CONTG    good    not  
           ‘Circumcision, **when** (it is) rainy season, (is) not good.’

As seen in (158), when a clause marked with =ò is verbless, the contingent clitic attaches to whatever word is clause-final (the noun *ɸílí* in this case).

### 5.7.4 *Optative*

Optative mood is formed by the affixation of the optative suffix *-é/é* (depending on the [ATR] value of the root vowels) to the base forms of a verb (cf. Lukas 1953:85), as illustrated by the comparison of indicative and optative forms in Table 5.26 (with only the optative morpheme break identified, for simplicity). The optative suffix replaces the word-final epenthetic vowel (or simply makes it unnecessary).

TABLE 5.26 *Indicative vs. optative forms*

Indicative	Gloss	Optative	Gloss
d̥ʒɛ̃n	'he gave me (s.t.)'	d̥ʒɛ̃n-é	'may he give me (s.t.)'
n̥tʃɛ̃n	'he gave you (s.t.)'	n̥tʃɛ̃n-é	'may he give you (s.t.)'
tʃɛ̃n	'he gave him (s.t.)'	tʃɛ̃n-é	'may he give him (s.t.)'
d̥ʒɛ̃ntò	'he gave us (s.t.)'	d̥ʒɛ̃nt-é	'may he give us (s.t.)'
n̥tʃɛ̃ntò	'he gave you (p) (s.t.)'	n̥tʃɛ̃nt-é	'may he give you (p) (s.t.)'
tʃɛ̃n	'he gave them (s.t.)'	tʃɛ̃n-é	'may he give them (s.t.)'

Unlike the imperative forms (cf. §5.7.5), the subject of an optative can be any person (first, second, or third; contra Lukas (1953:85), who states that the optative cannot be used with a second person subject), as demonstrated in examples (159), (160), and (161).

- (159) bíní      ánáàsàrò      jèjéntírè  
           bíní      ánáàsà=rò      jèjé-n-t-r-e  
           today    joy=DAT      converse-LV-P-1-OPT  
           'Today, let's converse with joy/joyfully.'

- (160) d̥lɛ̃nòmè  
           d̥lɛ̃-Ø-n-m-ε  
           imitate-3.OBJ-LV-2-OPT  
           'May you imitate him.'

- (161) állà      gòfúrà      n̥tʃɛ̃né  
           állà      gòfúrà-a      n-j-jén-ε  
           God      forgiveness-P      2.OBJ-3-give-OPT  
           'May God give you forgiveness.'

As the examples above illustrate, the optative covers usages that might have distinct forms in other languages, such as '(co)hortative' addresses and wishes/blessings.

### 5.7.5 Imperative

Imperatives are formed using the same person agreement and number markers as indicative verbs and exhibit the same split between simple verbs and light verb constructions. However, imperatives are distinguished from (most) other forms by two criterial factors. First, imperatives do not include an overt subject agreement marker, as illustrated in (162).<sup>23</sup>

- (162) d̥iléd̥in  
 d̥ilé-d-n-Ø  
 imitate.IMV-1.OBJ-LV-2  
 'Imitate me!'

Though there is no overt subject agreement marker, there is evidence that there is still a 'covert' or 'understood' subject agreement marker present. Specifically, the plural morpheme *-t* appears when the (covert) subject is plural, but not when it is singular (unless triggered by a first or second person plural object). The identity of forms whose only difference is the number of a third person object (examples (163) and (164)) demonstrates it is not the third person object that triggers the presence of the plural marker *-t* in (165).

- (163) d̥ilén  
 d̥ilé-Ø-n-Ø  
 imitate.IMV-3.OBJ-LV-2  
 '(You [sg.]) Imitate him.'

- (164) d̥ilén  
 d̥ilé-Ø-n-Ø-Ø  
 imitate.IMV-3.OBJ-LV-P-2  
 '(You [sg.]) Imitate them.'

- (165) d̥iléntò  
 d̥ilé-Ø-n-t-Ø  
 imitate.IMV-3.OBJ-LV-P-2  
 '(You [pl.]) Imitate him/them.'

Second, imperatives use a distinct reflexive morpheme, *s-*, instead of the indicative reflexive morpheme *-t/-* (often phonetically realized intervocalically

23 Cf. the parallel claim of Jakobi & Crass (2004:95) regarding imperatives in Beria: 'the imperative form is characterized by the absence of the subject morpheme' (*la forme de l'impératif est caractérisée par l'absence du morphème sujet*).

as [d]). In the reflexive imperative forms with *s-*, the second person object agreement prefix *n-* does not co-occur. This difference is illustrated in the indicative reflexive and imperative reflexive, respectively, in (166).

- (166) *dìléntìn*  
*dìlé-n-t-n*  
 imitate-2-REFL-LV  
 'You imitated yourself.'

*dìlésìn*  
*dìlé-s-n-Ø*  
 imitate.IMV-REFL-LV-2  
 'Imitate yourself!'

However, because the indicative reflexive morpheme is underlyingly identical to the first person object morpheme, indicative third person reflexives (which lack subject markers and have the object marker *Ø-* for third person) share the same forms as certain imperative forms, as illustrated in (167), where the same phonetic realization could be either a non-reflexive imperative or an indicative reflexive, respectively, depending on context.

- (167) *dìlédìn*  
*dìlé-t-n-Ø*  
 imitate.IMV-1.OBJ-LV-2  
 'Imitate me!'

*dìlédìn*  
*dìlé-Ø-t-n*  
 imitate-3-REFL-LV  
 'He imitated himself.'

The full conjugation of the imperative forms of *dilé* 'imitate' is given in Table 5.27.

'Negated imperatives', or prohibitions, are formed by negating the basic verb form (formally identical to the perfective form). This is illustrated in (168).

- (168) *bààmmí*  
*Ø-báb-m-ní*  
 3.OBJ-hit-2-NEG  
 '(You [sg.]) Don't hit him!'

For more on the morphology of prohibitions, see §6.2.1.

TABLE 5.27 *Imperative transitive LVCS*

Root: <i>dìlé</i> 'imitate'			Root	1O	2O	3O	Refl	LV	P	EP
Singular subj.	<i>dìlédìn</i>	imitate me!	<i>dìlé</i>	d-				n		
	<i>dìlésòn</i>	imitate yourself!	<i>dìlé</i>				s-	n		
	<i>dìlén</i>	imitate him!	<i>dìlé</i>			Ø-		n		
	<i>dìlédìntò</i>	imitate us!	<i>dìlé</i>	d-				n	-t	ò
	(not gram.)	imitate you (p)!								
	<i>dìlén</i>	imitate them!	<i>dìlé</i>			Ø-		n	(-t)	
Plural subj.	<i>dìlédìntò</i>	imitate me!	<i>dìlé</i>	d-				n	-t	ò
	(not gram.)	imitate you (s)!								
	<i>dìléntò</i>	imitate him!	<i>dìlé</i>			Ø-		n	-t	ò
	<i>dìlédìntò</i>	imitate us!	<i>dìlé</i>	d-				n	-t	ò
	<i>dìlésòntò</i>	imitate yourselves!	<i>dìlé</i>				s-	n	-t	ò
	<i>dìléntò</i>	imitate them!	<i>dìlé</i>			Ø-		n	-t	ò

### 5.7.6 *Hortative*

Besides second person (canonical) imperatives, there are also first person plural forms which are distinct from the optative forms, and share some distinguishing features with imperatives. I have analyzed these as hortatives.

Like imperatives, hortatives lack the overt subject markers that are obligatory on all other verb forms (including optatives, some of the forms of which otherwise share some similarities with the first person plural imperatives). However, hortatives are dissimilar to the imperatives in at least two ways. First, they lack the distinctive *s-* reflexive marker of the imperatives; in fact, it appears that the hortatives lack a reflexive morpheme entirely. Second, rather than the characteristic [n] or [u/ò] that ends imperatives, the hortatives end in [a], except when the object is first person, in which case the suffix [e/ɛ] is attached. The meaning/function of these suffixes is currently unknown. An example of a hortative paradigm is given below, in Table 5.28, for the root *dìlé* 'imitate'. Interestingly, forms with first and second person singular (but not plural) objects were considered ungrammatical by my language consultant.

TABLE 5.28 *Hortatives*

Root: dilé 'imitate'			Root	1O	2O	3O	LV	P	?
1s	(not gram.)	*let's imitate me!							
2s	(not gram.)	let's imitate you (s)!							
3s	diléntà	let's imitate him!	dilé			Ø-	n	-t	a
1p	dilé dintè	let's imitate ourselves!	dilé	d-			n	-t	ε
2p	dilé nintà	let's imitate you (p)!	dilé		n		n	-t	a
3p	diléntà	let's imitate them!	dilé			Ø-	n	-t	a

## 5.8 Voice

Morphologically, verbs have only two voices, active and reflexive. There are no passive verb forms, but passive-like statements can be made using adjectives or 'impersonal' actives (cf. §5.8.3).

### 5.8.1 *Active*

The active voice forms of verbs are the basic forms presented above in §5.3, §5.4, and §5.5. The reader is referred to those sections for further details.

### 5.8.2 *Reflexive*

I include reflexive verbs under the discussion of voice alternations because, like passives in other languages, reflexives in Dazaga are valency reducing derivations from active verb forms. There are no reflexive pronouns, and derived reflexive verbs are the only means of forming reflexive constructions. While morphologically intransitive (that is, having only one core argument agreement marker), verbs derived by means of the reflexive morpheme *t* are always semantically transitive (as opposed to the patterns observed in Tedaga (Ortman 2003)).

Reflexive verbs are derived by the addition (to the basic, active forms) of the reflexive morpheme *t* (for reflexive imperatives, see §5.7.5). The reflexive morpheme will be either a suffix, as in (169), or a prefix of the light verb, as in (170), depending on whether the reflexive form of the verb comes from a simple transitive verb or from a transitive LVC, respectively.

- (169) dááppò  
d-báb-t  
1-hit-REFL  
'I hit myself.'
- (170) dîléntòntò  
dîlé-n-t-n-t  
imitate-2-REFL-LV-P  
'You imitated yourselves.'

The person specified by the agreement morpheme of the reflexive form agrees with the person (first, second, or third) of the sole referential participant, the NP bearing the subject grammatical relation, if present in a clause. This is illustrated in (171), where the third person marker Ø- agrees with the third person subject *fírí* 'arrow'.

- (171) *fírí*      *kòsònírò*                      *èkkàà*      *dáá*      *kóktìn*  
*fírí*      *kòsò-Ø-n-r=ò*                      *èkké=a*      *dáá*      *kók-Ø-t-n*  
 arrow throw-3.OBJ-LV-1=DET tree=DET on fix.to-3-REFL-LV  
 'The arrow which I shot lodged itself in the tree.'

In (172) and (173), there is no free noun phrase subject constituent, but the subject of the reflexive verb is understood to have the same person as the agreement marker on the verb (namely, first person in these examples).

- (172) *tàfó*      *díró*      *fófórdìn*  
*tàfó*      *díró*      *fófór-d-t-n*  
 sand in roll-1-REFL-LV  
 'I rolled [lit. 'rolled myself'] in the sand.'
- (173) *fùrúmdìn*      *mòráṅà*      *lánír*  
*fùrúm-d-t-n*      *mòrá=ṅà*      *lá-Ø-n-r*  
 turn-1-REFL-LV 3P=ACC look.at-3.OBJ-LV-1  
 'I turned [lit. 'turned myself'] (around) and looked at them.'

While reflexive verbs are morphologically intransitive, they remain semantically transitive, and the presence of the detransitivizing reflexivity marker indicates that the person of the agreement marker is the person of both the agent and the patient. Since (what is normally) the object agreement morpheme is used to agree with the NP bearing the subject grammatical relation,



reflexive verbs could be characterized as derived  $S_p$  verbs (as opposed to the underived  $S_p$  verbs described in §5.5.2). I have therefore labeled the agreement affixes as subject agreement markers in the following tables.

As in active verbs, plurality in reflexive verbs is indicated by a separate plural morpheme, distinct from the person agreement morphemes. The paradigm of a simple reflexive verb is presented in Table 5.29.

TABLE 5.29 *(Perfective) simple reflexive verbs*

	tàó 'hit'		1S	2S	3S	Root	Refl	P	EP
1S	dáápò	I hit myself	d			báb	t		o
2S	ntáápò	you hit yourself		n		báb	t		o
3S	tááptò	he hit himself			Ø	báb	t		o
1P	dááptódò	we hit ourselves	d			báb	t	t	o
2P	ntááptódò	you (p) hit yourselves		n		báb	t	t	o
3P	tááptódò	they hit themselves			Ø	báb	t	t	o

As the plural and reflexivity markers are underlyingly phonologically identical morphemes, it is not actually possible to determine their order relative to each other in the plural reflexive forms. In the table above, I have placed the reflexive morpheme before the plural morpheme assuming that derivational morphemes will occur inside of inflectional morphemes.

The paradigm of a reflexive LVC is presented in Table 5.30.

TABLE 5.30 *(Perfective) reflexive LVCs*

	dilédí 'imiter'		Root	1S	2S	3S	Refl	LV	P	EP
1S	diléddìn	I imitated myself	dilé	d			t	n		
2S	diléntìn	you imitated yourself	dilé		n		t	n		
3S	diléddìn	he imitated himself	dilé			Ø	t	n		
1P	diléddintò	we imitated ourselves	dilé	d			t	n	t	o
2P	diléntòntò	you (p) imitated yourselves	dilé		n		t	n	t	o
3P	diléddintò	they imitated themselves	dilé			Ø	t	n	t	o

As Table 5.30 shows, the reflexive morpheme in reflexive LVCs occurs in a different position within the verb than it does in simple reflexive verbs. Rather than appearing after the root and plural marker, as in simple reflexive verbs, the reflexive marker in reflexive LVCs occurs before the LV and plural marker. The reason for this difference is unknown.<sup>24</sup>

There are three transitive and ditransitive verbs (in my database) that have traditionally (e.g. Lukas 1953; cf. §5.1) been classified as Class 1 (that is, they use ‘object’ markers as ‘subject’ markers, like *S<sub>p</sub>* verbs; cf. §5.2.3). These verbs can take free pronoun objects, as illustrated in (174) and (175), but cannot form reflexives, as demonstrated in (176) and (177).

- (174)    *ńtàgà*      *dàássò*  
           *ńtà=gà*    *d-báz-tu*  
           2S=ACC    1-hear-P  
           ‘We heard you (s).’

- (175)    *tìntágà*    *nàázò*  
           *tìntá=gà*   *n-bázù*  
           1P=ACC    2-hear  
           ‘You heard us.’

- (176)    \**tìntágà*    *dàássò*  
           *tìntá=gà*    *d-báz-tu*  
           1P=ACC    1-hear-P  
           (‘We heard ourselves.’)

- (177)    \**ńtágà*      *nàázò*  
           *ńtà=gà*      *n-bázù*  
           2S=ACC    2-hear  
           (‘You heard yourself.’)

Examples (178) and (179) demonstrate that without accusative case marking on the free pronouns, these clauses must be interpreted as active clauses lacking an object constituent, and cannot be interpreted as reflexives.

- (178)    *tìntá*      *dàássò*  
           *tìntá*      *d-báz-tu*  
           1P        1-hear-P  
           ‘We heard \_\_\_\_.’  
           (\*‘We heard ourselves.’)

24 Cf. footnote 16.

- (179)    *ńtà    nàázò*  
           *ńtà    n-bázo*  
           2S    2-hear  
           ‘You (s) heard \_\_\_\_.’  
           (\*‘You heard yourself.’)

This inability to form reflexives is perhaps not surprising, since, historically, all *S<sub>p</sub>* verbs (that is those which use object agreement morphemes to agree with their subjects) were likely intransitive (cf. Ortman 2003), and there would not have been a way to form reflexives from *S<sub>p</sub>* verbs.

### 5.8.3 *Passive*

Dazaga does not have passive verb forms. That is, there is no passive verb morpheme which correlates with an obligatory demotion of the agent(-like) constituent to a non-core grammatical relation. To translate passive clauses from other languages, Dazaga speakers must either change the clause to active voice or use an adjective derived from a verb.

The use of an active clause to express a passive clause from another language is illustrated below, where the French passive clause *Le père a été imité par son fils* ‘The father was imitated by his son’ was the form presented to a native speaker of Dazaga, and the active Dazaga clause in (180) was the resultant elicited form.

- (180)    *mí    ábbàgà    dīlèi*  
           *mí    ábbà=gà    dīlè-Ø-j*  
           son    father=ACC    imitate-3.OBJ-3  
           ‘(The) son imitated (his) father.’

Another related way to express passives in Dazaga is by the use of ‘impersonal actives’.<sup>25</sup> In this type of construction, the verb is active with an object but with a third person plural ‘impersonal’ subject. This is illustrated in (181).

- (181)    *ábbà    nírògà          ñòrsú    dīrɔ    ʃɪttú*  
           *ábbà    nír=ò=gà          ñòrsú    dīrɔ    Ø-j-jíd-t*  
           father    1S.POSS=DET=ACC    war    in    3.obj-3-kill-p  
           ‘My father was killed in war.’ [lit. ‘They killed my father in war.’]

25    Keenan & Dryer (2007:329) write, ‘Perhaps the most common means [for expressing functional equivalents of basic passives] is to use an active sentence with an ‘impersonal’ third person plural subject.’

The other method of expressing passive clauses from other languages is to use adjectives (what might be called ‘adjectival passives’) derived from verb roots by means of the derivational suffix *-ré* (cf. §4.1.2.2). This strategy is illustrated in (182), where the language consultant was presented with the passive French clause *La terre a été mouillée par la pluie* (‘The ground was made wet by the rain’).

- (182)    bòsò=mà            ìí=rò            lùfùd-ré  
              ground=DET    water=DAT    moisten-ADJZ  
              ‘The ground (is/was) wet by the rain.’

In this case, the patient is expressed as the subject of a non-verbal clause, and the agent is expressed with an instrumental oblique in the dative case. The expression of the agent is not obligatory, as illustrated in (183), where no agent is specified.

- (183)    tàrgàzú            wàrt-ré  
              tàrgàzí=u        wàrt-ré  
              branch=DET    burn-ADJZ  
              ‘The branch (is/was) burned.’

## 5.9 Suppletive Verb Roots

There are several verbs whose roots themselves specify the number of their objects (cf. Lukas 1953:61). Thus, some verbs select only singular objects and others select only plural objects, a phenomenon that König (2008:45) refers to as ‘verbal plurality’. However, this term could be easily confused with pluractional verbs and event plurality. This phenomenon is probably better identified as ‘verb root suppletion’, a term also used by Jakobi & Crass (2004) and Jakobi (2011:87, 93) in the description of Beria (Zaghawa).<sup>26</sup> There are nineteen such suppletive verb roots in my database, all of which are transitives (fifteen are simple transitives, and the remaining four are transitive LVCS). These suppletive verb roots are presented in Table 5.31.

26 Jakobi & Crass (2004:84–87) report suppletive verb roots differing in number of subject, number of object, and aspect. In Dazaga, I have only encountered suppletion related to number of object.

TABLE 5.31 *Suppletive verb roots (exhaustive list)*

Root meaning	Sg. object	Pl. object
'pour, dump, drop'	gáltí	béétí
'expel, drive away'	fódí	bóktí
'cause'	tono	mugu
'bring'	kòrtí	tògòrtí
'remove'	tìrí	ǰèrí / tèhèrí
'place'	tìnàó	tùrùrí
'put'	tìnní	tùù
'let go, set free'	tòsòó	tùfùrí
'retrieve, collect'	tòó	wóòr

These verbs all have to do with causing or allowing an event, usually having to do with the object(s) going into motion. While some of the pairs of singular/plural stems could conceivably be phonologically related (e.g. [kòrtí] and [tògòrtí]), most are clearly not, and there is no pattern of derivation by which the stem of one number is derived from the stem of the other number.

König (2009:31) suggests that these suppletive verbs roots in Dazaga (as in Mandara and !Xun) follow an ergative pattern, where the number of either the object (when used transitively) or of the single argument (when used intransitively) will determine which root is used, but never the number of the transitive subject. I have not found this to be the case, as none of these verbs can be used intransitively, and so the suppletive root variation is solely determined by the number of the transitive object.

## Structure of the Simple Clause

In this chapter, I describe the structure of simple clauses. By ‘simple clauses’ I mean clauses that are monoclausal and include only one verb. For this reason causatives and serial verb constructions are treated elsewhere, in Chapter 8. I also only include here clauses in the indicative mood that do not include special information structuring phenomena. I include here verbs of varying valency, but reserve the description of sentence types, clause combinations, and complex predicates for subsequent chapters (namely, Chapter 7 on sentence types and Chapter 8 on clause combinations and complex predicates).

I begin with a description and analysis of postpositions, adverbs, and case markers, then move to a description of verbal clauses (namely, intransitive, monotransitive, and ditransitive), followed by a description of non-verbal clauses (including clauses with an existential predicate).

### 6.1 Minor Class Constituents

#### 6.1.1 *Postpositions*

As expected for a language with SOV basic word order, Dazaga has postpositions rather than prepositions (cf. e.g. the statistics presented by Hagège 2010:111). Contrary to the general pattern in African languages, and in Nilo-Saharan languages specifically (Creissels et al. 2008:124), Dazaga has a fair number of monomorphemic words that function (mostly or exclusively) as postpositions. Adpositions are rarely ‘distinguished from other morpheme types or from lexemes by specific structural features’ (Hagège 2010:110), and this difficulty in distinction is increased because many adpositions in African languages are historically derived from nouns or verbs (Creissels et al. 2008:124). In this section, I classify morphemes as postpositions if 1) they require a preceding NP (as opposed to adverbs; cf. §6.1.2), 2) they are phonologically free from their preceding NPs (as opposed to the case marker enclitics; cf. §6.2), and 3) their semantic content is roughly in line with the type of meanings typically associated with adpositions (especially spatial and temporal senses; cf. Hagège 2010:257–329).

König (2008:38) states, ‘Whether the Saharan languages have a case system or not is not uncontroversial’ (cf. Hutchison 1981; Cyffer 1983; Jakobi & Crass 2004; Jakobi 2006). She claims that ‘core and peripheral participants’ (referring

to terms and obliques) are marked by postpositions, and that such postpositional marking is obligatory for peripheral participants, but optional for core participants (König 2008:38). She concludes that these data allow two possible interpretations. First, perhaps Saharan languages are not case languages at all,<sup>1</sup> since their apparent 'case' is expressed by postpositions and is sometimes optional. Or, perhaps they do have case, and this case is expressed by postpositions, an analysis which would be 'a rather unusual accusative case system', according to König (2008:39).

The difficulty expressed by König in analyzing the case system of Dazaga (and the Saharan languages more generally) lies primarily in a failure to distinguish between the (phonologically and morphologically free) postpositions (cf. §6.1.1) and the enclitic case markers that mark ergative, accusative, genitive, and dative case in Dazaga (an error also made by Lukas (1953)).<sup>2</sup> Further complications in the analysis arise because patterns of case marking in Dazaga are affected by information structure and animacy as well as by grammatical relations and other syntactic matters, as König (2008) rightly recognizes.<sup>3</sup> These complicating matters are further discussed below in §6.2.

Several pieces of evidence support distinguishing case markers from postpositions. First, [ATR] vowel harmony is a crucial phonological distinction between postpositions and enclitic case markers. Since the domain of [ATR] vowel harmony is the phonological word, the vowels of postpositions (unlike the vowels of case enclitics) do not harmonize with the [ATR] value of the

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- 1 König (2008:32) defines a 'case language' as 'a language with grammaticalized case that is present if case is obligatorily expressed to distinguish at least S, A, and O by the following means: affix, tone, root reduction, accent shift, and/or adpositions'.
  - 2 Blake (2001:9–12) provides a helpful summary of some of the difficulties in distinguishing case markers from adpositions, and notes that phonological boundness is usually a corollary of case markers (as in Dazaga), but not of adpositions. Cf. Kittilä, Västi, & Ylikoski (2011:3): '[Case and adpositions both] express similar functions, e.g. coding semantic roles. However, the two concepts are not identical and there are certain formal differences between them. In principle, case markers are affixes and as such attach tightly to their hosts and may, for example, cause morphophonological changes in them. Adpositions, in turn, are seen rather as independent constituents...' Interestingly, Dryer (2007b:82–83) claims that the Kanuri morpheme *=ga*, which marks the 'object' NP, is best analyzed as a 'postpositional clitic'.
  - 3 These complications also exist for Kanuri (Hutchison 1986:192, 199), in the description of which Cyffer (1983:201) is reluctant to use the term 'case', because it does not strictly mark 'inflection or, specifically, declension'. To use the term in Kanuri, he says it would have to 'include word order, postpositions, semantic criteria' etc. (1983:201). Cf. Kittilä, Västi, & Ylikoski (2011:17–22) for a useful summary of some of the relationships between case and animacy. See also the study by Yamamoto (1999:45–67) on the relationship between animacy and case marking, word order, subject selection, and topicality.

vowels of the preceding word as illustrated in (184), where the [–ATR] postposition *bàrà* ‘after’ remains [–ATR] even after the [+ATR] word *ɲífírírù* ‘celebration (dat.)’. On the other hand, the dative case enclitic =*rò* becomes [+ATR] =*rù* when it attaches to the [+ATR] root ‘celebration’.

- (184) *ɲífírírù*                      *bàrà*    *dìgìsá*    *dìgíràm*    *tìgìsòò*                      *tàní*  
*ɲífírí=rù*                      *bàrà*    *dìgìsá*    *dìgíràm*    Ø-*tìgìsò-ó*                      *tàní*  
celebration=DAT    after    days    twenty    3-happen-CTNG    1S  
*dérìgì*  
*d-tér-gì*  
1-go-IPFV  
‘When twenty days after the celebration have passed, I will go.’

A second important piece of evidence for the existence of a class of postpositions distinct from case markers is that some postpositions require the noun phrases which they follow to be marked with a particular case marker, such as the dative case, as in example (185), or the accusative case, as in example (186).

- (185) *jòm*    *térò*                      *bàrà*    *gìnná*    *dùgùlí*    *àgír*  
*jòm*    *té=rò*                      *bàrà*    *gìnná*    *dùgùlí*    *àgír*  
day    that=DAT    after    all    lion    donkey  
*kòlòkòlòjinní*  
*kòlòkòlò-Ø-j-n-ní*  
provoke-3.OBJ-3-LV-NEG  
‘After that day, the lion no longer provoked the donkey.’
- (186) *mèré=gà*    *òsú*    Ø-*jén-Ø*  
3S=ACC    after    3.OBJ-give-2  
‘Follow him.’

As many postpositions do not specify the case of the noun phrase they govern, I do not consider this a necessary criterion for considering a word to be a postposition, but it does support the category of postposition, particularly as distinct from the case markers.

Thirdly, case markers behave differently in relative clauses than postpositions do (cf. §8.3.2). When the object of a postposition is gapped, the postposition must be left stranded, rather than deleted. In the correct sentence, (187), *kóló* ‘field’ is gapped, but *dáá* ‘on’ is left. When *dáá* ‘on’ is also deleted, the result is ungrammatical (188).



- (187) kólò — dáá jégè níró tòmìrò  
 kólò — dáá jégè níró=ò Ø-tóm-r=ò  
 field on house 1S.POSS=DET 3.OBJ-build-1=DET  
 jóbìr  
 Ø-jób-r  
 3.OBJ-buy-1  
 'I bought the land on (which) I built my house.'
- (188) \* kólò — — jégè níró tòmìrò  
 kólò — jégè níró=ò Ø-tóm-r=ò  
 field house 1S.POSS=DET 3.OBJ-build-1=DET  
 jóbìr  
 Ø-jób-r  
 3.OBJ-buy-1  
 ('I bought the land on (which) I built my house.')

On the other hand, when the noun phrase to which a case marker is cliticized is gapped, the case marker must also be deleted. Thus, in the grammatical sentence (189), the entire instrumental oblique *d̥zàná=rò* 'with knife' is gapped. When the dative case enclitic (here showing instrumentality) is left stranded, the sentence is ungrammatical (190).

- (189) d̥zàná — òrkáà jìdíró kír  
 d̥zàná — òrkó=à Ø-jíd-r=ù Ø-kí-r  
 knife goat=DET 3.OBJ-kill-1=DET 3.OBJ-break-1  
 'I broke the knife (with which) I killed the goat.'
- (190) \* d̥zàná rò òrkáà jìdíró kír  
 d̥zàná =rò òrkó=à Ø-jíd-r=ù Ø-kí-r  
 knife =DAT goat=DET 3.OBJ-kill-1=DET 3.OBJ-break-1  
 ('I broke the knife (with which) I killed the goat.')

Oblique postpositional phrases (which are sometimes hard to distinguish from adjuncts) tend to precede the object (as do other obliques), as in (191) and (192), where the object and oblique constituents are bracketed and identified as such.

- (191) [ébè sómà d̥író]<sub>OBL</sub> [tíná]<sub>OBJ</sub> déi  
 ébè són=mà d̥író [tíní-a] Ø-j-téi  
 handbag 3S.POSS=DET in object-P 3.OBJ-3-have  
 'She has (her) things in her handbag.'

- (192) [kàrágà d̀̀ŕ]OBL [ʃíla èb̀̀érá]OBJ hàn̩ír  
 kàrágà d̀̀ŕ ʃíli-a èb̀̀érí=a hák-Ø-n-r  
 bush in egg-P turtledove=GEN.P find-3.OBJ-LV-1  
 'In the bush, I found eggs of a turtledove.'

While locative oblique postpositional phrases frequently follow the subject (if explicit), as in (193) and (194), temporal adjunct postpositional phrases more commonly precede the subject, as in (185) and (195).

- (193) [àr̩í àì]SUBJ [dàó dáá]OBL dòbbú dànní  
 àr̩í àì dàó dáá dòbbú Ø-j-téi-ní  
 woman this head on thick.braid 3.OBJ-3-have-NEG  
 'This woman doesn't have a thick braid on (her) head.'

- (194) [ɲáràm]SUBJ [íí d̀̀ŕ]OBL ʃ̩̀ʊ̀ʊ̀ʊ̀ní  
 ɲáràm íí d̀̀ŕ j-toroo-ní  
 crocodile water in 3-leave-NEG  
 'Crocodiles don't leave the water.'

- (195) [káágó t̩̀ŕ̩n d̀̀ŕ]AJCT [dáúdà]SUBJ èŕ̩ʃí g̀̀s̀í̀g̀ì  
 káágó t̩̀ŕ̩n d̀̀ŕ dáúdà èŕ̩ʃí Ø-j-kís-gì  
 week one in (name) voyage 3.OBJ-3-do-IPFV  
 'In one week, Daouda will go on a trip.'

However, when a locative postpositional phrase is used in existential clauses (as opposed to non-existential clauses), it usually occurs first in the clause, before the subject and existential predicate, as illustrated in (196).

- (196) [d̩́́ér̩̀d̩̀l àì d̀̀ŕ]OBL íí ʃ̩́í  
 d̩́́ér̩̀d̩̀l àì d̀̀ŕ íí Ø-ʃ̩́í(g)  
 bucket this in water 3-be  
 'There's water in this bucket.'

Examples (197) and (198) illustrate two more postpositions, while Table 6.1 presents a sample of Dazaga postpositions.

- (197) màrá ʃ̩́úú k̩̀ẃ̩ gódù  
 màrá ʃ̩́úú k̩̀ẃ̩ Ø-gó-t  
 3P two between 3-fight-P  
 'The two of them fought between themselves.' [lit. 'Between them two, they fought.']

TABLE 6.1 *Sample listing of postpositions*

Postposition	Gloss(es)	Postposition	Gloss(es)
bàrà	'after'	kî	'with'
círè	'alongside'	kíncí	'without'
dáá	'on'	k <sup>w</sup> î	'between'
diró	'in'	kòlógò	'next to, beside'
fí	'under'	làó	'toward'
kégé	'like'	ṛùllí	'above, over'

- (198) jégàà            kàsógò    kòlógò    ɸíí  
           jégè=à        kàsógò    kòlógò    Ø-ɸíí(g)  
           house=DET    market    next.to    3-be  
           'The house is next to the market.'

### 6.1.2 *Adverbs*

I use the term 'adverb' here to refer to 'modifiers of constituents other than nouns' (Schachter & Shopen 2007:20), including words that modify single words and words that modify whole sentences. I do not deal here in any depth with adverbial clauses (see §8.2.4), though I will comment briefly below on adverbs formed with the dative case enclitic =*rò*, and adverbial phrases formed using the homophonous subordinator =*rò*.<sup>4</sup>

Dazaga has fewer than fifty underived adverbs (in my database), all of which are monomorphemic. These include adverbs of manner (199), time (200), place (201), degree (202), and sentence modifiers (203). Of underived adverbs, those of time are the most numerous in my data, as illustrated below. Most other types of underived adverbs are few in number.

4 I think it is quite likely that the subordinator =*rò* is a grammaticalization of the dative case enclitic =*rò*, similar to that described for Kanuri and Ik by Heine (1990). In this case, the distinction between 'dative' and 'subordinator' is not really a distinction in morphemes (at least historically), but a distinction in usages of the same morpheme.

- (199) [mòdírà] 'voluntarily, purposely'  
 [bíré] 'by foot'  
 [dèrí] 'without cause'  
 [dúródúró] 'successively'  
 [gúm] 'silently'  
 [ḡgòní] 'again'
- (200) [érè] 'currently'  
 [ónnó] 'now'  
 [kúllúm] 'all the time, all day'  
 [ḡàrdó] 'in past days'  
 [óḡkò] 'previously'  
 [ḡòskí] 'yesterday'  
 [nòḡó] 'recently'  
 [àḡḡó] 'for a while'  
 [àwòré] 'day after tomorrow'  
 [bèrké] 'next year'  
 [féméí] 'early'  
 [dàjìré] 'very early'  
 [dèrègè] 'later, lastly'  
 [dímán] 'always, every day'  
 [ḡḡúkùr] 'never, not at all'  
 [kóólì] 'never'
- (201) [óttù] 'there'  
 [kònnónà] 'everywhere'
- (202) [àddí] 'a little'  
 [bórò] 'very'  
 [bés] 'only'
- (203) [bálik] 'maybe'

Some adverbs, for example *bórò* 'very', can modify adjectives (204), verbs (205), and verb phrases (206).

- (204) jíní àì bórò kàrànné  
 jíní àì bórò kàràn-ré  
 meat this very fat-ADJZ  
 'This meat (is) very fatty.'

- (205) ámmá cúú árá bórò bèrkéintù  
 ámmá cúú árá bórò bèrké-j-n-t  
 people two these much dispute-3-LV-P  
 'These two men disputed a lot.'
- (206) àǝ àì bórò hám déi  
 àǝ àì bórò hám Ø-j-téi  
 man this much worry 3.OBJ-3-have  
 'This man worries a lot.' [lit. 'This man has worry a lot.']

Beyond the small number of underived adverbs, adverbs (especially of manner) are productively formed by attaching the dative case enclitic =*rò* to an adjective (Jourdan 1935:30; Lukas 1953:170; LeCoeur & LeCoeur 1956:50), as illustrated in (207), to a postpositional phrase (208), and, in a few cases, to a noun (209).

- (207) /eskí=**ru**/ 'new=DAT' / 'newly'  
 /gálɪ=**rò**/ 'good=DAT' / 'well'  
 /kórɛ=**rò**/ 'short=DAT' / 'quickly'  
 /kálkál=**lo**/ 'equal=DAT' / 'equally'  
 /wɔdó=**rò**/ 'bad=DAT' / 'badly'
- (208) áǝ kìnǝǝrò górò dùrtùní  
 áǝ kìnǝǝ=**rò** górò d-túr-t-ní  
 provision without=DAT able.to 1-leave-P-NEG  
 'We can't leave without provisions.'
- (209) /ǝǝ=**ru**/ 'mouth=DAT' / 'orally' (?)  
 /kíǝ=**ru**/ 'speed=DAT' / 'quickly'

I do not consider =*rò* in these cases to be a distinct derivational suffix, but rather to be a use of the dative case enclitic =*rò*. I have analyzed a homophonous enclitic =*rò*, as a subordinator, rather than as the dative case enclitic, since it attaches to whole clauses to make them subordinate adverbial clauses (cf. §8.2.4), as illustrated in (210) and (211).

- (210) jégàà dúrtùrù màrá àgòzòó ǝǝkkí  
 jégà=à d-túr-tù=**rù** màrá àgòzòó Ø-ǝǝg-t  
 house=DET 1-leave-P=SUB 3P three 3-be-P  
 '(When) we went (to their) houses, they were three [i.e. 'there were three of them'].'

- (211) gèidám                      bàràntîrrò                      àgó      féruù  
           gèidám                      bàrà-Ø-n-t-r=rò                      àgó      féru=ù  
           (name)                      search-3.OBJ-LV-P-1=SUB                      then      river=DET  
           fǝrè                      girdô  
           fǝrè                      t-gír-t  
           on.the.edge.of      1-arrive-P  
           ‘(When) we found Geidam, then we arrived at the edge or the river.’

## 6.2 Case Markers

In Dazaga, the four case markers are =ì for ergative case, =gà for accusative case, =ò, =à, =ɲà for genitive case, and =rò for dative case. These case markers (especially the ergative, and, to a lesser degree, the accusative) in Dazaga, and parallel enclitics in other Saharan languages, have been variously analyzed. In the analysis which I propose, Dazaga exhibits a tripartite system of case marking for transitive subjects, intransitive subjects, and primary objects of transitive verbs. Each of the four case markers will be dealt with in more depth in the following sections.

A word of explanation is warranted at this point. I use the term ‘ergative’ in this section to describe structures that do not fit a prototypical ‘ergative/absolutive’ pattern. In fact, I do not analyze the marking of clause constituents in Dazaga as ergative/absolutive at all, but as exhibiting a tripartite case marking system, in which the enclitic =ì is ‘ergative’ in the sense that it can occur on the subjects of transitive verbs but never intransitive verbs. Similarly the accusative case enclitic =gà is ‘accusative’ in the sense that it is distinct from the case marking of the subjects of both transitive and intransitive verbs. Thus =ì exhibits an ‘ergative’ pattern of distribution relative to the markings of the single arguments of verbs and relative to objects, and =gà exhibits an accusative pattern of distribution relative to the markings of subjects. These considerations should be borne in mind as the reader proceeds through the following description and discussion.

### 6.2.1 *Ergative Case Enclitic =ì*

The ergative case enclitic =ì only occurs (unambiguously) on the subject NP constituent in a transitive clause, but is not obligatory for subjects of transitive clauses. The form [ì] occurs on [+ATR] stems and [i] on [−ATR] stems. I analyze =ì as an optional ergative case marker (cf. McGregor 2009:493–497), in full accord with the analysis proposed by Wolfe & Adam (2015) for Beria

=*gu*. It is optional in the sense that it does not obligatorily occur on all ergative constituents, but rather occurs only as conditioned by a number of factors, as described below. As mentioned above, this yields a tripartite system of case marking for transitive subjects, intransitive subjects, and primary objects of transitive verbs.<sup>5</sup> Thus, ergative constituents are (optionally) marked =*i*, single arguments of intransitive verbs are invariably marked =*Ø*, and accusative constituents are (optionally, except in the case of free pronouns) marked =*gà*.

Previous literature on Dazaga (Jourdan 1935; LeCoeur & LeCoeur 1956) has largely ignored the ergative case enclitic, though Lukas (1953:164) does deal with it briefly, calling it ‘a postposition for denoting the subject’ (*eine Postposition zur Bezeichnung des Subjekts*).

My tripartite analysis of subject and primary object marking suggests that seemingly intransitive instances of the verb *tòfàrí* ‘to speak, say’, when they take ergative-marked subjects, are actually transitive, with the third person object prefix *Ø*-. This interpretation is illustrated in (212), where the verb is marked as agreeing with a third person object (evidently the implicit speech content).

- (212)    *árórò*            *té*            *kégé*            *tórkòì*            *farɔŋarɛ*  
           *áró=rò*        *té*            *kégé*            *tórkó=i*        *Ø-j-fár=ŋa-ré*  
           goat=DAT    that        like            jackal=ERG    3.OBJ-3-say=?=ADJZ  
           *àgó*    *tórkórò*        *áròì*                    *farɔŋɛ*                    “...”  
           *àgó*    *tórkó=rò*        *áró=i*                    *Ø-j-fár-gì-ré*            “...”  
           then    jackal=DAT    goat=ERG        3.OBJ-3-say-IPFV-ADJZ  
           ‘When the jackal had spoken like that to the goat, the goat said to the  
           jackal: “...”’

Lukas (1953:165) gives the following example (word glosses and English translation added), in which =*yi* (that is, =*i*) marks a NP constituent that functions as the subject of both an intransitive verb and a transitive verb, which would suggest that =*i* might be a nominative marker, and not an ergative marker.

- (213)    *anyíma*        *yì*            *ɛrcí*        *wudén*        *ga*        *góyi*  
           the.man    NOM    3.rise        gazelle        ACC       3.take  
           ‘Der Mann erhob sich und nahm die Gazelle.’  
           ‘The man rose and took the gazelle.’

5 This same tripartite system, with almost identical morphemes, is claimed for Kanuri by Bondarev et al. (2011).

However, this seemingly problematic occurrence of  $=\grave{i}$  can be accounted for in two ways. First, it is possible that this is a mistranscription, especially since the verb *jèrtí* ‘rise, get up’ in Lukas’ transcription is missing the initial [j]. Thus, the sentence could be retranscribed as in (214), in which there is no occurrence of the ergative case enclitic.

- (214) ànǐímà          jèrtǐ      wídéngà      góì  
           ànǐí=mà      jèrt-j      wídén=gà      gó-Ø-j  
           man=DET      rise-3      gazelle=ACC      take-3.OBJ-3  
           ‘The man rose and took the gazelle.’

Alternately, if the presence of the ergative case enclitic is assumed, as in (215), this may simply be a case of ‘ergative hopping’ (cf. Haviland 1979:154–155; McGregor 1988:46; etc.). ‘Ergative hopping’ refers to ergative case marking of a noun phrase which functions simultaneously as the subject of an intransitive verb and the subject of a transitive verb (e.g. when verb phrases are coordinated).

- (215) ànǐímàì                  jèrtǐ      wídéngà      góì  
           ànǐí=mà=ì          jèrt-j      wídén=gà      gó-Ø-j  
           man=DET=ERG      rise-3      gazelle=ACC      take-3.OBJ-3  
           ‘The man rose and took the gazelle.’

Notably, such ergative hopping or ‘anticipatory’ ergative marking (McGregor 2011:168) has already been identified in Beria (Wolfe & Adam 2015), and I take example (215) to be an occurrence of the same phenomenon in Dazaga.

Rather than simply marking the grammatical relation ‘transitive subject’, the distribution of the ergative case enclitic is conditioned by a number of factors, not all of which can be fully explored in the present study. Below I list and illustrate the environments (sometimes overlapping) that most commonly correlate with, and probably trigger, the use of the ergative case enclitic. Many of these environments are mentioned in previous studies of the parallel enclitics in Kanuri ( $=j\epsilon$ ) and Beria ( $=gu$ ), and, in such cases, I give the references to the studies that mention the environments. Significantly, these factors are cross-linguistically common in conditioning the distribution of optional ergative markers (cf. McGregor 1992, 2009).

First,  $=\grave{i}$  marks highly agentive subjects of transitive verbs (Bondarev et al. 2011; Hutchison 1986; Wolfe & Adam 2015). This is illustrated in (216) and (217).



- (216) g<sup>w</sup>òní                      nóm<sup>m</sup>à                      áríí                      dànnó  
           g<sup>w</sup>òní                      nóm=<sup>m</sup>à                      áríí                      Ø-j-téi-ní=<sup>ò</sup>  
           camel                      2S.POSS=DET                      mark                      3.OBJ-3-have-NEG=CENTG  
           wúrài                      gòntígì  
           wúrè-a=<sup>ì</sup>                      gó-Ø-j-n-t-gì  
           thief-P=ERG                      take-3.OBJ-3-LV-P-IPFV  
           'If your camel doesn't have a brand mark, thieves will take (it).'

- (217) éskír                      t'ráì                      érírù                      òsón                      òrò                      f'júbù  
           éskír                      t'rá=<sup>ì</sup>                      érí=rù                      òsón                      òrò                      Ø-j-júb  
           soldier                      INDF=ERG                      spear=DAT                      side                      in                      3.OBJ-3-pierce  
           '(The day they killed the prophet Jesus,) a soldier pierced his side with  
           a spear.'

The ergative case marking on highly agentive subjects of transitive verbs contrasts with the absence of the ergative case marking on subjects with low agentivity. The absence of the ergative case marking on subjects of low agentivity is illustrated in (218) to (220), where neither *àṣ àí* 'this man', nor *kèwáà* 'the mat', nor *dàó* '(my) head' receive ergative case marking.

- (218) àṣ                      àí                      ìní                      wónà                      bùbùí  
           àṣ                      àí                      ìní                      Ø-j-bó=ηà                      bùbù-Ø-j  
           man                      this                      thing                      3.OBJ-3-bite=REL                      vomit-3.OBJ-3  
           'This man vomited what he ate.'

- (219) kèwáà                      bùrgòú                      déi  
           kèwé=<sup>à</sup>                      bùrgòú                      Ø-j-téi  
           mat=DET                      dust                      3.OBJ-3-have  
           'There is dust on the mat.' [lit. 'The mat has dust.']

- (220) dàó                      d̥zìzèntógì  
           dàó                      d-j-zèntó-gì  
           head                      1.OBJ-3-hurt-IPFV  
           'My head is hurting me.' [free: 'I've a headache.']

Second, the occurrence of =<sup>ì</sup> often correlates with an unlikely, or low-animacy, agent (Bondarev et al. 2011; Hutchison 1986; Cyffer 1983), as illustrated in (221) and (222). Often this includes agents that are lower in animacy than the object, as shown in (223) and (224).

- (221) àǫ      àì      dílimì      káá      sínà      górò  
àǫ      àì      dílim=ì      kéé-a      sín-a      Ø-j-kór  
man      this      leprosy=ERG      hand-P      3S.POSS-P      3.OBJ-3-cut  
‘This man, leprosy cut his hands.’
- (222) dómórò      dǝǝǝǝ      òwónì  
dómór=ò      Ø-dǝǝǝǝ-Ø      òwón=ì  
palm.stamen=DET      3.OBJ-close.IMV-2      wind=ERG  
gòìṅì  
gó-Ø-j-n-gì  
take-3.OBJ-3-LV-IPFV  
‘Close the palm stamen; the wind will take (it).’
- (223) kùrùkùrùì      dǝgí      dáá      wóì  
kùrùkùrù=ì      dǝgí      dáá      Ø-j-bó  
insect.type=ERG      foot      on      3.OBJ-3-bite  
‘The insect stung him on the foot.’
- (224) àgírì      èrkéllìrò      dǝǝǝ  
àgír=ì      èrkéllì=rò      d-j-báb  
donkey=ERG      kick=DAT      1.OBJ-3-hit  
‘The donkey struck me with a kick.’

In cases where the subject of a transitive verb is human, and thus a likely agent, but is not highly agentive, the ergative case marker is absent, barring other factors. This is illustrated in (218), above, and in (225).

- (225) dòú      sómmà      àṅíí      dànní  
dòú      sòn=mà      àṅíí      Ø-j-téi-ní  
girl      3S.POSS=DET      husband      3.OBJ-3-have-NEG  
‘His girl doesn’t have a husband.’

These first two uses of the ergative case enclitic could be lumped together as ‘marked agentivity’, that is, high agentivity or unexpected agentivity.

Third, =ì is very frequently used to mark the subject NP of a speech verb followed by a direct or indirect quote (Hutchison 1986; Wolfe & Adam 2015). Hutchison (1986:201) reports that this quotative use of the parallel Kanuri enclitic =jε is in fact now the only usage of that enclitic in most dialects of Kanuri (namely, Bilma, Dagera, Fashi, Kuburi, Manga, Sugurti, and Tumari). The quotative use of =ì is illustrated in (226), (227), and (228).

- (226) *haiwanòì*                      *mòrárò*                      *farigire*                      “...”  
*haiwan=ò=ì*                      *mòrá=rò*                      Ø-j-fár-*gr-rè*                      “...”  
monster=DET=ERG                      3P=DAT                      3.OBJ-3-say-IPFV-ADJZ  
‘The monster said to them, “...”’
- (227) *àgú*                      *kʷòí*                      *térò*                      *àsàíbàì*  
*àgú*                      *kʷòí*                      *té=rò*                      *àsàíbà=ì*  
then                      place                      that=DAT                      prophet’s.entourage=ERG  
*fattigire*                      “...”  
Ø-j-fár-t-*gr-rè*                      “...”  
3.obj-3-say-P-IPFV-ADJZ  
‘Then, at that place, the prophet’s disciples said, “...”’
- (228) *állàì*                      *kìzên*                      *kìsìm-mí*                      *jí*  
*állà=ì*                      *kìzên*                      Ø-kís-m-ní                      *jí*  
God=ERG                      adultery                      3.OBJ-do-2-NEG                      3.say  
‘God told you not to commit adultery.’ / ‘God said you shouldn’t  
commit adultery.’

When a verb of speech is used without a following (direct or indirect) quote, the ergative case marking is absent, as illustrated in (229).

- (229) *ábbà*                      *nírò*                      *mó*                      *d̥ʒòfànní*  
*ábbà*                      *nír=ò*                      *mó*                      d-j-fár-ní  
father                      1S.POSS=DET                      falsehood                      1.OBJ-3-speak-NEG  
‘My father doesn’t speak falsehood to me.’

Fourth, =ì is used to mark subject noun phrases (Jakobi 2006; Wolfe & Adam 2015) when they are optionally moved to an immediately preverbal position. Section 7.7 deals with this usage in more detail. An example of this use of the ergative case enclitic is illustrated in (230), where ‘sparrowhawk’ is italicized in the free translation to indicate focus.

- (230) *kògʷójà*                      *nómmà*                      *èlíì*                      *góì*  
*kògʷójè-a*                      *nóm=mà*                      *èlíì=ì*                      *gó-Ø-j*  
chicken-P                      2S.POSS=DET                      *sparrowhawk*=ERG                      take-3.OBJ-3  
‘A *sparrowhawk* took your chickens.’

A fifth possible factor is activation status, and possibly other discourse-related issues. Bondarev et al. (2011) and Wolfe & Adam (2015) investigate this factor in some depth for Kanuri (cf. also Hutchison 1986) and Beria, respectively. Discourse factors are outside the scope of the current study, and, due to limited space and data, I cannot demonstrate here whether and to what extent various discourse phenomena affect the distribution and function of the ergative case enclitic =*ɪ*.

The use of the term ‘ergative’ to describe the enclitic =*ɪ* is not uncontroversial. Aside from Saharan verb systems, the distribution and function of the ergative case enclitic and its equivalents in other Saharan languages is perhaps the most widely discussed issue in Saharan linguistics, and there is considerable disagreement on how exactly to analyze these enclitics.

The parallel Kanuri enclitic =*jɛ* was described as a ‘nominative’ case marker in the earlier accounts (Koelle 1854:161; Lukas 1937:17). Later analyses have tended to abandon a ‘case marking’ analysis or to at least expand and qualify the idea of ‘case marking’. Thus, Hutchison (1981:215) states that ‘Kanuri does not have a case marking system’, and analyzes =*jɛ* as a postposition that indicates that the subject is the ‘agent’ or ‘source’ of the action of the verb. Cyffer (1983:201) also questions whether it is best to analyze Kanuri as having a case system, and clarifies that if ‘case’ is used to describe particular enclitics, it would have to be qualified to include factors such as word order and semantic criteria. He concludes that the ‘degree of active participation in the action’ (1983:194) is the determining criterion in predicting the occurrence of =*jɛ*.<sup>6</sup> In a later study (1986), Hutchison reverts to referring to =*jɛ* and certain other enclitics as ‘case markers’, and claims (1986:201) that (in the Yerwa dialect), =*jɛ* functions (primarily) to ‘denote transitive NP subjects as semantic agents’, but also occurs on subjects of intransitive verbs in certain narrative discourses.<sup>7</sup> In the most recent and complete study of the Kanuri ‘case’ system, and of =*jɛ* in particular, Bondarev et al. (2011:32) find that multiple factors condition the distribution of =*jɛ*, including ‘inherent agential properties of the referent’, ‘lexical semantics of the verb’, and the ‘discourse-related cognitive status’ of the subject NP. The distribution of the Dazaga enclitic =*ɪ* seems to be influenced by many of these same factors, but the enclitic is not used to mark subjects

6 Cyffer’s sketch of Kanuri (1998a) does not deal with the ‘case marking’ enclitics as such.

7 It is possible that some of these occurrences may be explained as instances of ergative hopping.

of intransitive clauses, as it is claimed to in Kanuri (Bondarev et al. 2011:49; Hutchison 1986:201; Cyffer 1983:194).<sup>8</sup>

Though the literature on the parallel Beria (Zaghawa) enclitic =*gu* is not as extensive as the literature on the Kanuri case system, the disparity of analysis is hardly less pronounced. The enclitic =*gu* attaches to subjects of transitive verbs in certain situations, and Jakobi & Crass (2004:151) analyze it as a ‘focalizer’ (*focalisateur*) and claim that it focuses the agent of a transitive clause. They find that another enclitic, =*di*, focuses the single argument of an intransitive verb or the patient of a ‘weakly transitive’ (*caractérisée par un faible degré de transitivité*) predicate (2004:152), thus completing a fully ergative/absolutive system of focus markers. Jakobi (2006) follows basically the same analysis, further claiming (and demonstrating) that =*gu* and =*di* can co-occur in a clause. Wolfe & Adam (2015) argue that =*gu* is actually an optional ergative case marker whose distribution and function is conditioned by multiple factors. They re-analyze =*di* as a specificational copula and not as a focal or case marker.

Thus the distribution and function(s) of the enclitic =*i* in Dazaga share some of the features of the parallel enclitic in Kanuri, and are fully parallel to the distribution of Beria =*gu* as described and analyzed in Wolfe & Adam (2015).

### 6.2.2 Accusative Case Enclitic =*gà*

The accusative case enclitic =*gà* is used to mark the primary object of a transitive verb (and sometimes the secondary object of a ditransitive verb), but is not obligatory and often does not appear on primary objects when the primary object constituent is clearly identifiable from the order of constituents in the clause, as in (231).

- (231)    ʃʃègèní      sómmà            èzá            ʃʃúú      déi  
           ʃʃègèní      sòn=mà            èzí-a        ʃʃúú      Ø-j-téi  
           lute        3S.POSS=DET    string-P    two        3.OBJ-3-have  
           ‘His lute has two strings.’

However, when the primary object is an independent pronoun, the accusative case enclitic is obligatory (cf. Lukas 1953:160), as demonstrated in (232) and (233). Interestingly, this asymmetrical distribution of case, where accusative case is obligatory on object pronouns, but not on full NP objects, is analogous to the the majority pattern of morphological case-asymmetry, where ‘the

8 Though Hutchison (1981:215) notes that =*ye* is ‘almost totally restricted to transitive sentences.’



- (236)  $k\underline{\eta\underline{\eta}}$                        $k\underline{\eta}g^w\underline{\eta}j\underline{\eta}(g\underline{\eta})$                        $g\underline{\eta}$   
 $k\underline{\eta\underline{\eta}}=i$                        $k\underline{\eta}g^w\underline{\eta}j\underline{\eta}(=ga)$                        $g\underline{\eta}-\emptyset-j$   
bush.cat=ERG      chicken(=ACC)      take-3.OBJ-3  
‘The bush cat took a [non-specific, indefinite] chicken.’

- (237)  $k\underline{\eta\underline{\eta}}$                        $k\underline{\eta}g^w\underline{\eta}j\underline{\eta}$                        $t^i r\underline{\eta}(g\underline{\eta})$                        $g\underline{\eta}$   
 $k\underline{\eta\underline{\eta}}=i$                        $k\underline{\eta}g^w\underline{\eta}j\underline{\eta}$                        $t^i r\underline{\eta}(=ga)$                        $g\underline{\eta}-\emptyset-j$   
bush.cat=ERG      chicken      INDF(=ACC)      take-3.OBJ-3  
‘The bush cat took a [specific, indefinite] chicken.’

Regarding definiteness, a comparison of (234) or (235) with (237) demonstrates that an object noun phrase can optionally take accusative case marking whether it is definite or indefinite. Thus, none of the three most common determiners of differential object marking determine the distribution of the accusative case enclitic in Dazaga. Further research will be required to determine the motivating factors behind these differential object marking patterns.

The accusative case enclitic has two phonetic forms,  $[g\underline{\eta}]$  and  $[\eta\underline{\eta}]$ , the latter of which is homophonous with one of the forms of the genitive case enclitic and with the relativizer  $=\eta\underline{\eta}$ , but functionally distinct from each of these.

This variation between  $[g\underline{\eta}]$  and  $[\eta\underline{\eta}]$  is observed when the enclitic attaches to the same word, as illustrated in (238) and (239), where either  $[g\underline{\eta}]$  or  $[\eta\underline{\eta}]$  may attach to the pronoun  $m\underline{\eta}r\underline{\eta}$ . This suggests that the variation between  $[g\underline{\eta}]$  and  $[\eta\underline{\eta}]$  is not phonologically conditioned.

- (238)  $m\underline{\eta}r\underline{\eta}=g\underline{\eta}$        $\partial s\underline{\eta}$        $\emptyset-j\underline{\eta}n-\emptyset$   
3S=ACC      after      3.OBJ-give.IMV-2  
‘Follow him.’
- (239)  $m\underline{\eta}r\underline{\eta}\eta\underline{\eta}$        $f\underline{\eta}r\underline{\eta}r\underline{\eta}$        $f\underline{\eta}\partial b\underline{\eta}$        $f\underline{\eta}r\underline{\eta}$   
 $m\underline{\eta}r\underline{\eta}=g\underline{\eta}$        $f\underline{\eta}r\underline{\eta}=r\underline{\eta}$        $\emptyset-j-j\underline{\eta}b$        $\emptyset-j-j\underline{\eta}d$   
3S=ACC      arrow=DAT      3.OBJ-3-pierce      3.OBJ-3-kill  
‘He killed it with an arrow.’

This variation is found even with objects of the same verb, as illustrated in (240) and (241), where the verb  $t\underline{\eta}\partial$  takes an object marked by  $[g\underline{\eta}]$  or  $[\eta\underline{\eta}]$ . This suggests that the distribution of  $[g\underline{\eta}]$  and  $[\eta\underline{\eta}]$  is not lexically specified by the verb.

- (240) 

tàní	mèrégà	báàr		
tàní	mèré=gà	Ø-báb-r		
1S	3S=ACC	3.OBJ-hit-1		

‘It was I who hit him.’
- (241) 

àǫ	áiηà	gìrtí	dáá	wǎb
àǫ	ái=ηà	gìrtí	dáá	Ø-báb-Ø
man	this=ACC	neck	on	3.OBJ-hit.IMV-2

‘Hit this man on the neck.’

In reviewing transcribed sentences in which the accusative case enclitic was variously transcribed as [gà] or [ηà], my language consultant stated that it should always be written as =gà, which suggests that =gà is likely the underlying form of the enclitic, and that [ηà] is either a variant in fast speech or an idiolectal or dialectal variation of =gà.

### 6.2.3 Genitive Case Enclitic =ò, =à, =ηà

The genitive case enclitic has three forms: =ò, =à, and =ηà. The forms =ò and =ηà differ from =à in number, with =ò or =ηà used when the possessum is singular, and =à used when the possessum is plural, as illustrated in (242) to (244).

- (242) 

jégè	gòdúù	déi	
jégè	gòdú=ù	Ø-j-téi	
house	clay=GEN.S	3.OBJ-3-have	

‘He has a house of clay.’
- (243) 

dínè	ónnó=ηà	zòntó
world	now=GEN.S	bad

‘The present world (is) bad.’
- (244) 

jálà	dùròú	níròà	tàηójà
jálì-a	dùròú	nír=ò=à	tàηó=ηà
child-P	older.sister	1S.POSS=DET=GEN.P	1S.POSS=GEN.S
dífi	sóntó		
dífi	sóntó		
mat.uncle	3P.POSS		

‘The children of my older sister, (I’m) their uncle.’



As with other affixes and enclitics, the genitive case enclitics harmonize with the [ATR] value of the possessor (with [a] transparent to [ATR] harmony).

It is not easy to determine the semantic distinction between =ò and =ɲà. Of this distinction, Lukas (1953:37) states, 'a difference in meaning between the two cannot be detected' (*ein Unterschied in der Bedeutung der beiden läßt sich nicht feststellen*). In an analysis of over sixty occurrences of these genitive case enclitics, I was able to determine strong tendencies, but no exceptionless rules that would completely predict the distribution of the various genitive enclitics.

Thus, =ɲà occurs when the genitive NP is specific (examples (245) and (246)),<sup>9</sup> and =ò when the genitive NP is nonspecific (examples (247) and (248)). The plural =à occurs whenever the possessum is plural, regardless of specificity.

- (245) g<sup>w</sup>ònùn      lárdò=ɲà      Ø-gásò-Ø  
          law          country=GEN.S      3.OBJ-obey.1MV-2  
          'Obey the law of the country.'

- (246) dǎrdé      ɲégì=ɲà      máì      úmàrà  
          chief      (place)=GEN.S      (name)      (name)  
          'The chief of N'guigmi (is) Mayi Umara.'

- (247) áì      búrí      kóró=ò  
          this      hole      rat=GEN.S  
          'This (is) the hole of a rat.'

- (248) kòlú      góbálkàò      dàgìrdí  
          kòlú      góbálkì-a=ò      Ø-dák-r-dí  
          sauce      okra-P=GEN.S      3.OBJ-want-1-NEG  
          'I don't want okra sauce.'

Despite these strong tendencies, some occurrences do not seem to fit these patterns, and may indicate that factors other than specificity partially determine the distribution of =ò and =ɲà. First, in (249), =ò is used with a genitive NP whose referent is clearly specific given the presence of the article =ma (cf. §4.1.5; notably, this is the only exception I found to the distributional

9 Kevin Walters (p.c.) suggests that the genitive =ɲà may be a combination (at least semantically, if not etymologically), of the genitive case =(g)ò and the determiner =ma. Lukas (1953:163) claims that =ɲà is 'a genitive postposition of demonstrative origin' (*eine genitivische Postposition demonstrativen Ursprungs*).

pattern of =ò). Furthermore, =ɲà is frequently used in generic statements where the referent of the genitive NP seems to be nonspecific, as illustrated in (250). However, since natural kinds (which are generics; cf. Kearns (2000:138)) often function as specific, referential noun phrases, (250) is perhaps not an exception to the pattern (cf. Kroeger 2014b:3).

- (249)    tání      ná      kòsèè      nǐmàò      bàrànr  
           tání      ná      kòsèè      nǐ=mà=ò      bàrà-Ø-n-r  
           1S      also    councilor    town=DET=GEN.S    search.for-3.OBJ-LV-1  
           ‘I also sought to become a councilor of the town.’

- (250)    fòrcì    gʷàní=ɲà      tùkùlí  
           dung    camel=GEN.S    round  
           ‘Camel’s dung (is) round.’

Furthermore, evidence from various language consultants suggests that the distribution of =ò and =ɲà may be at least partly determined by idiolectal (and possibly dialectal) factors. Specifically, I took several sentences from one language consultant, switched out =ò for =ɲà, and presented these modified sentences, as well as the French gloss of the original sentence, to a second language consultant. The second language consultant sometimes found the modified sentences to be grammatical and sometimes stated that =ɲà should be used instead of =ò. I also performed the opposite change (=ò to =ɲà) and found that the second language consultant again approved of some of the modified sentences but changed some of them back to the original form. Examples (251) and (252) exhibit the variation in choice of genitive enclitics by the two consultants.

- (251)    jíní      gʷàní=ò/ɲà      fǒssò  
           meat      camel=GEN.S    good  
           ‘Camel meat (is) good.’

- (252)    kòlú      kàràsú=ò/ɲà      oufai      dákkò  
           kòlú      kàràsú=ò/ɲà      ouf-a=i      Ø-j-dák-t  
           sauce      sorrel=GEN.S    (name)-P=ERG    3.OBJ-3-like-P  
           ‘Kanuri (people) like sorrel sauce.’

Finally, I presented example (253) to the second language consultant, and asked if it were possible to switch between =ò and =ɲà for the same French

translation, and he confirmed that it was possible, thus demonstrating that both forms may be simultaneously acceptable to the same speaker.<sup>10</sup>

- (253) kòlú            góbálkà=*ò/ɲà*            dàgìrdí  
          kòlú            góbálkà-i=*ò/ɲà*            Ø-dák-r-dí  
          sauce        okra-P=GEN.S            3.OBJ-want-1-NEG  
          'I don't want okra sauce.'

It is possible that discourse status (e.g. whether or not textually evoked, whether or not topical, etc.) or other factors may also influence the distribution of the genitive enclitics, resulting in a distribution that is not predictable solely in terms of specificity. However, based on the strong distributional tendencies noted above, the usage of the genitive enclitics can be summarized in terms of specificity and number, as in Table 6.2.

TABLE 6.2    *Genitive case enclitics*

	Non-specific	Specific
Singular	= <i>ò</i>	= <i>ɲà</i>
Plural		= <i>à</i>

Given the frequent identity or similarity of genitive and relative clause markers in many languages across the world (Aristar 1991), including some Nilo-Saharan languages, it is striking to note that the three enclitics used in Dazaga to mark genitive case (= *ò*, = *à*, and = *ɲà*) are identical to three of the enclitics used to form relative clauses (cf. §8.2.3.1). However, two facts suggest that this identity is (at least synchronically) coincidental. First, there is a fourth enclitic, = *mà* (one of the forms of the determiner), which is also used to mark relative clauses, which suggests that the relative clause markers = *ò* and = *à* should also be interpreted as instances of the determiner, which also has the forms = *ò* and = *à* (cf. §4.1.5) (and the relative clause marker = *ɲà* should be analyzed as a distinct relativizer). Second, while the distribution of genitive = *ò* and = *à*

10 Kevin Walters (p.c.) pointed out that this apparent neutralization of the distinction between = *ò* and = *ɲà* may simply reflect two different readings of the French *du gombo* 'of okra', one of which is non-specific, and the other of which is specific.

is determined by the number of the possessum, the distribution of the relative clause markers =ò and =à, like the distribution of the determiner forms =ò and =à, is phonologically conditioned.

In usage, besides showing possession, the genitive case can express other relationships such as ‘source’ (example (254)), ‘composition/material’ (example (255)), or ‘contents’ (example (256)).

- (254)    ìì            billíò            fǽdí            fǽkkí  
           ìì            billí=ò        Ø-j-jé-t-í        Ø-fǽ(g)-t  
           water    pond=GEN.S    3.OBJ-3-drink-P-PROG    3-be-P  
           ‘They are drinking water from the pond.’

- (255)    áì            dùrú            bìrgáò  
           áì            dùrú            bìrgí-a=ò  
           this        row            brick-P=GEN.S  
           ‘This (is) a row of bricks.’

- (256)    áì            fèti            kàfé=ò  
           this        can            coffee=GEN.S  
           ‘This (is) a can of coffee.’

The order of the possessor and possessum is noteworthy, given Dazaga’s SOV word order. Greenberg’s second universal (1966:78) states that ‘in languages with postpositions [the possessor] almost always precedes [the possessum]’. Contrary to this typological tendency, the possessum precedes the possessor in Dazaga, as illustrated in (257) and (258).

- (257)    tàní    ná    [kòséè]<sub>PSM</sub>    [níímàò]<sub>PSR</sub>    bàrànr  
           tàní    ná    kòséè            níí=mà=ò        bàrà-Ø-n-r  
           IS        also    councilor    town=DET=GEN.S    search.for-3.OBJ-LV-1  
           ‘I also sought to become a councilor of the town.’

- (258)    [jégà]<sub>PSM</sub>            [fǽfirúǵà]<sub>PSR</sub>            kòlókìǵì  
           jégè=a            fǽfirí=u=ǵà            kòlók-Ø-j-n-ǵì  
           house=DET        bird=DET=GEN.S    remove-3.OBJ-3-LV-IPFV  
           ‘He removed the bird’s nest.’

However, Greenberg’s fifth universal (1966:79) predicts that “[i]f a language has dominant SOV order and the genitive follows the governing noun, then the adjective likewise follows the noun.” This is the case in Dazaga (cf §4.2). Thus,

noun phrases are head-initial in Dazaga, despite its SOV word order and use of postpositions.

#### 6.2.4 *Dative Case Enclitic =rò*

The dative case enclitic =rò occurs very frequently, and has many uses, as might be expected given the diversity of use of the dative case cross-linguistically (cf. Abraham 2006:40). The difference in form between [rù] and [rò] is due to [ATR] harmony, as illustrated in (259) and (260).

- (259)    ʃʃìrù                ìí                fòzór  
             ʃʃì=rù            ìí                Ø-fóz-r  
             mouth=DAT    water            3.OBJ-spew-1  
             'I sprayed water with (my) mouth.'

- (260)    àì                    àì=rò            kóré  
             this                this=DAT       short  
             'This (is) short(er) than this.'

The dative case enclitic can be used for locative adjuncts (example (261)), instrumental obliques (example (262)), temporal adverbials (example (263)), comparative constructions (example (260)), or simply as a case required by certain postpositions (example (264)).

- (261)    àríí            àì            ʃʃárò            ʃʃàṅàì            déì  
             àríí            àì            ʃʃá=rò            ʃʃàṅàì            Ø-j-téì  
             woman    this            nose=DAT    nose.ring       3.OBJ-3-have  
             'This woman has a nose ring in her nose.'

- (262)    tàí            sómmà            àgàsó=rò            górò  
             tàí            sòn=mà            àgàsó=rò            Ø-j-kór  
             neck        3S.POSS=DET    sword=DAT       3.OBJ-3-cut  
             'He cut its neck with (a) sword.'

- (263)    ʃíkí            bélké            ná            hànǵírò            sàà  
             ʃíkí            bélké            ná            hák-Ø-n-r-ò            sàà  
             tomorrow    morning        also            find-3.OBJ-LV-1-CTNG    hour  
             dǐssírò            jèrdírgì  
             dǐssí=rò            jért-r-gì  
             six=DAT            get.up-1-IPFV  
             'Tomorrow morning, if possible [lit. 'if I find (it)'], I will get up at six o'clock.'

- (264) jôm            té<sub>rò</sub>            bárá            ginná            dùgùlí            àgír  
           jôm            té=<sub>rò</sub>            bárá            ginná            dùgùlí            àgír  
           day            that=**DAT**            after            all            lion            donkey  
           kòlòkòlòjinní  
           kòlòkòlò-Ø-j-n-ní  
           provoke-3.OBJ-3-LV-NEG  
           ‘After that day, the lion no longer provoked the donkey.’

Dative case also marks third person recipients of ditransitive verbs, and first or second person recipients if a redundant pronoun is used. These patterns are illustrated in (265) and (266). However, for reasons explained in detail in §6.3.3, these dative case recipients should be considered the primary objects of the ditransitive verbs.

- (265) ñtàgà            d̩rdárò            ñf̩jén  
           ñtà=gà            d̩rdé=a=<sub>rò</sub>            n-j-jén  
           2S=ACC            chief=DET=**DAT**            2.OBJ-3-give  
           ‘He gave you to the chief.’
- (266) àríímàì                            (tàṇó<sub>rò</sub>)            jálì            d̩jén  
           àríí=mà=i                        (tàṇó=<sub>rò</sub>)            jálì            d-j-jén  
           woman=DET=ERG            (1S=**DAT**)            child            1.OBJ-3-give  
           ‘The woman gave me the child.’

The dative case enclitic is often used with adjectives, and sometimes with other words or constituents to form adverbs (see §6.1.2). For more on the homophonous subordinator =<sub>rò</sub>, used to form certain adverbial clauses, see §8.2.4.

### 6.3 Basic Verbal Clauses

The basic word order is SOV (cf. Dimmendaal 2008:284), and this word order is maintained fairly rigidly (as is common in Africa; cf. Creissels et al. 2008:127), apart from a few changes for information structuring purposes (cf. §7.5.2 and §7.7).<sup>11</sup> Further details about the structure of verbal clauses are sketched in the following subsections.

11 Lukas (1953:177), however, states ‘Tubu word order is not rigid . . . This normal [SOV] word order is, however, frequently altered by putting an object of importance for the sentence at the beginning’ (*Die Wortstellung der Tubusprache ist nicht starr . . . Der genannte*

### 6.3.1 *Intransitive Clauses*

As described in §5.5, intransitive verbs exhibit split-intransitive encoding of their single arguments, with some single arguments encoded like subjects of transitive verbs and some like objects of transitive verbs. However, the argument agreement affixes are lexically specified, and any given intransitive verb only ever uses one set of argument agreement affixes. Despite the split in subject agreement affixes, all intransitive subject noun phrases receive null ( $\emptyset$ ) case marking.

Dazaga has SOV basic word order, and intransitive clauses are always SV in order, as illustrated below in (267) through (269). However, as (267) and (268) illustrate, pro-drop is possible (and even frequent), as the person and number of the single argument are obligatorily marked on the verb.

- (267)    bíní            bélké            sáà            dǐssírò            jèrdír  
           bíní            bélké            sáà            dǐssí=rò            jért-r  
           today        morning        hour        six=DAT        get.up-1  
           ‘This morning [lit. “today morning”], I got up at six o’clock.’

- (268)    jôm            té            àófì            ní            bàbàrfjĩ  
           jôm            té            àóf-j            ní            bàbàrt-j  
           day            that        be.afraid-3        and        tremble-3  
           ‘That day, he was afraid and trembled.’

- (269)    bàtátá            bùrfjíní                            fji  
           bátátá            búrt-j-n-í                            Ø-fji(g)  
           bat            take.off-3-LV-PROG        3-be  
           ‘The bat (animal) is taking off/jumping into flight.’

Oblique or adjunct constituents occur either between the S and V constituents, as in (270), or before both the S and V constituents, as in (271) and (272), but never following the verb.

- (270)    tàní            ónnó            bònâr  
           tání            ónnó            bó-n-r  
           1S            now            grow-LV-1  
           ‘I’m grown now.’ / ‘I’ve grown up now.’

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*Normalfall der Wortstellung kommt aber häufig dadurch nicht zur Anwendung, daß man ein für den Satz wichtiges Objekt an die Spitze stellt.).*

- (271) dískírù      bárá      àddîr      írìgì  
          dískí=rù      bárá      àddîr      Ø-írì-gì  
          noon=DAT      after      addir      3-come-IPFV  
          ‘After noon, “addir” [roughly “early afternoon”] comes.’
- (272) mèrí      kólò      sómmà      òrò      àlkám      bórò      lí  
          mèrí      kólò      sòn=mà      òrò      àlkám      bórò      lí-j  
          this.year      field      3S.POSS=DET      in      grain      much      grow-3  
          ‘This year, in his field, a lot of grain is growing/has come up.’

Changes in word order prompted by pragmatic and discourse considerations (e.g. focus, §7.7) only affect the ordering of S and O constituents and, therefore, do not affect the constituent order of intransitive clauses.

### 6.3.2 *Transitive Clauses*

Transitive clauses have the constituent order SOV, though, like intransitive clauses, the subject is often not present as a free standing clausal constituent, due to pro-drop. Where an explicit subject, object, and verb are all present, the word order of a transitive clause is almost always SOV (for exceptions, see §7.7), as illustrated in (273) and (274).

- (273) kóròì      básàl      ʔíʔíʔíʔíʔí  
          kórò=ì      básàl      ʔíʔíʔíʔíʔí-Ø-j  
          mouse=ERG      onion      chew.up-3.OBJ-3  
          ‘The mouse chewed up the onion.’
- (274) ʔò      áì      ìní      wónà      búbùì  
          ʔò      áì      ìní      Ø-j-bó=ʔà      búbù-Ø-j  
          man      this      thing      eat-3=REL      vomit-3.OBJ-3  
          ‘This man threw up what he ate.’

When an object and an oblique argument both occur in a transitive clause, they will normally occur between the subject and verb. However, the order of the object and oblique relative to each other is difficult to predict (as opposed to the order of the two objects in ditransitive clauses; cf. §6.3.3), as illustrated by examples (275) and (276), where the order of the primary object and the oblique instrument is inverted. The difference may be determined by pragmatic factors.



- ### 6.3.3 *Ditransitive Clauses*

Ditransitive verbs in Dazaga, like transitive verbs, only have two argument agreement morphemes (cf. §5.4). Since one of these agrees with the subject, only one is left to agree with one of the two objects. With which of these objects the object agreement marker on the verb agrees is determined by a combination of the person and semantic role of the objects, resulting in patterns very similar to those described in the Ditransitive Person-Role Constraint (Haspelmath 2004; cf. also Dryer 1986), where semantic role and person jointly influence the order of bound object morphemes.<sup>12</sup>

First, if only one of the objects is first or second person, it will be marked on the verb with the object agreement marker, regardless of the semantic roles of the objects, as illustrated in (277) to (279). In (277) and (278), the first or second person theme is marked with the object agreement marker on the verb (as well as the redundant accusative case free pronoun), and the third person recipient is marked with the dative case enclitic.

12 Haspelmath (2004) formulates the Ditransitive Person-Role Constraint as follows: 'Combinations of bound pronouns with the roles Recipient and Theme are disfavored if the Theme pronoun is first or second person and the Recipient pronoun is third person'. Jakobi & Crass (2004:71) note that the object agreement morphemes in Beria (in a transitive sentence) can agree with a patient or recipient.

- (277)    *ńtàgà*                      *dìrdárò*                      *ńǹjén*  
           *ńtà=gà*                      *dìrdé=a=rò*                      *n-j-jén*  
           2S=ACC                      chief=DET=DAT                      2.OBJ-3-give  
           ‘He gave you to the chief.’

- (278)    *tàŋjá*                      *dìrdárò*                      *dǹjén*  
           *tàŋó=gà*                      *dìrdé=a=rò*                      *d-j-jén*  
           1S=ACC                      chief=DET=DAT                      1.OBJ-3-give  
           ‘He gave me to the chief.’

In (279), the same two semantic roles (theme and recipient) and same verb appear, but the object agreement marker agrees with the recipient rather than the theme, because the recipient is first person and the theme is third person.

- (279)    *ábbà*                      *ńíròì*                      *gálà*                      *dǹjén*  
           *ábbà*                      *ńír=ò=ì*                      *gálà*                      *d-j-jén*  
           father                      1S.POSS=DET=ERG                      advice                      1.OBJ-3-give  
           ‘My father gave me advice.’

This alternation of which constituent is encoded by the verb’s object agreement marker is based on the alternation in *person* of the relevant constituents, and not on an alternation in *animacy* (cf. the animate theme in (277) versus the inanimate theme in (79)). This is demonstrated in (280) and (281), where both the third person themes and first person recipients are animate, yet the verbs take first person object markers, agreeing with the recipients rather than with the themes. In these two examples, the redundant first person dative free pronouns are optional, but, if they are used, they occur further from the verb than the theme.

- (280)    *dìrdé*                      *áiì*                      (*tàŋórò*)                      *égíré*                      *dǹjén*  
           *dìrdé*                      *ái=ì*                      (*tàŋó=rò*)                      *égíré*                      *d-j-jén*  
           chief                      this=ERG                      (1S=DAT)                      male.slave                      1.OBJ-3-give  
           ‘This chief gave me a man-servant.’

- (281)    *àríímàì*                      (*tàŋórò*)                      *jálì*                      *dǹjén*  
           *àríí=mà=ì*                      (*tàŋó=rò*)                      *jálì*                      *d-j-jén*  
           woman=DET=ERG                      (1S=DAT)                      child                      1.OBJ-3-give  
           ‘The woman gave me the child.’

Example (282) further illustrates the pattern of marking the first or second person recipient on the verb (with the object marker) instead of the third person theme, which, in this example, is in the accusative case (though lacking the optional accusative marker =gà).

- (282)    állà        gòfùrà        ñǽǽné  
            állà        gòfùrò-a      n-j-jɛn-ɛ  
            God      forgiveness-P    2.OBJ-3-give-OPT  
            'May God give you forgiveness.'

Second, when both objects of a ditransitive verb are first or second person, the recipient is marked with the object agreement marker, and theme is encoded only with a free pronoun.<sup>13</sup> This is demonstrated in (283) and (284), where, in each case, the object agreement marker agrees with the person of the recipient rather than the theme, as reinforced by the (optional) dative case free pronouns.

- (283)    ñtàgà        (tàǵórò)      dǽǽn  
            ñtà=gà      (tàǵó=rò)    d-j-jɛn  
            2S=ACC    (1S=DAT)    1.OBJ-3-give  
            'He gave you to me.'

- (284)    táǵà        (ñtàrò)      ñǽǽn  
            tàǵó=gà    (ñtà=rò)    n-j-jɛn  
            1S=ACC    (2S=DAT)    2.OBJ-3-give  
            'He gave me to you.'

Object agreement in Dazaga treats locatives and recipients differently. Locatives and recipients are defined based on semantic criteria: a locative is a 'spatial reference point of the event' (Kroeger 2005:54), whereas a recipient is an animate entity which acquires possession (and/or ownership) of the theme

13 This is unsurprising given the generalization made by Siewierska & Bakker (2007:107), 'Languages in which bound person forms on the verb are used for the R[ecipient] but not the T[heme] appear to be much more common than those in which the converse is the case'. Though the dative case on the agreed-with noun phrase seems unusual, it has been reported in other, unrelated languages, such as Bilinarra (Meakins & Nordlinger 2014:376), Warlpiri (Legate (2002); data from Hale et al. (1995:1432)), and Amharic (Amberber 2011; Baker 2012:258).

as a result of the event described in the verb. However, there are syntactic features which distinguish recipients from locatives in most cases. Recipients always receive dative case marking, whereas locatives are usually the objects of postpositions, as in (285) and (286), with the postpositions *díró* ‘in’ and *dáá* ‘on’.<sup>14</sup>

- (285) *jégè*            *sómmà*            *díró*            *súru*            *dínù*  
          *jégè*            *són=mà*            *díró*            *súru*            Ø-j-tín  
          house        3S.POSS=DET    in            perfume        3.OBJ-3-put  
          ‘She put perfume in her house.’
- (286) *kùrùkùrà*        *bàì*            *dìgí*            *dáá*            *d̥zooɔo*  
          *kùrùkùrú-a*        *bó-a=ì*            *dìgí*            *dáá*            *d-j-bó-t*  
          insect.type-P    big-P=ERG        foot            on            1.OBJ-3-bite-P  
          ‘Big insects bit me on the foot.’

As mentioned above, another syntactic distinction between locatives and recipients is object agreement marking. When a locative goal constituent, instead of a recipient, appears in a clause where both non-subject constituents are first or second person, the object agreement marker cannot agree with the locative constituent. In examples (287) and (288), the object agreement marker agrees with the theme rather than the locative, and the redundant free theme pronoun is optional.

- (287) (*ńtága*)            *tàŋjá*            *ńt̥fùgùrú*  
          (*ńtá=ga*)            *tàŋjó=ga*            *n-j-juguru*  
          (2S=ACC)        1S=ACC        2.OBJ-3-send  
          ‘He sent you to me.’
- (288) (*tàŋjá*)            *ńtága*            *d̥zùgùrú*  
          (*tàŋjó=ga*)            *ńtá=ga*            *d-j-juguru*  
          (1S=ACC)        2S=ACC        1.OBJ-3-send  
          ‘He sent me to you.’

14 Certain non-goal locatives can also be expressed with dative case marking, but with the meaning ‘at’ (as in ‘I will stay at the house’) rather than ‘to’. Dative case is not used with three place predicates (such as ‘put’ or ‘send’) taking an agent, a theme, and a locative goal.

In (289), where the object agreement marker agrees with the locative (as it would with a recipient), the clause is ungrammatical (whether or not the accusative case marker is used). The same situation is illustrated in (290), where object agreement with the locative is ungrammatical.

- (289) \*    *ńtà(gà)*            *d̥zùgùrú*  
              *ńtà(=ga)*        *d-j-juguru*  
              2S(=ACC)        1.OBJ-3-send  
              ('He sent you to me.')

- (290) \*    *tàŋ(á)*            *ñf̥jùgùrú*  
              *tàŋó(=ga)*        *n-j-juguru*  
              1S(=ACC)        2.OBJ-3-send  
              ('He sent me to you.')

The fact that the object agreement marker cannot agree with the first or second person locatives suggests that locatives are considered obliques (or adjuncts, in some cases) rather than core constituents.

A few comments are in order here regarding the status of the non-agent, non-theme arguments as locatives rather than recipients. First, though animate goals of verbs like 'send' tend to be understood cross-linguistically (via implicature) as recipients (Aristar 1996), this is a much less natural reading when the theme is also animate, especially human (cf. Rappaport Hovav & Levin 2008:136, footnote 7). Thus, in the examples above, it is unlikely that the locative is actually a recipient.

Secondly, in all unambiguous instances of free recipient constituents, the recipient takes dative case. The lack of dative case in (287) and (288) is highly anomalous if the constituents are recipients rather than locatives, but is fully expected if they are locatives rather than themes.

Third, the presence of accusative case on the locative constituent in (287) and (288) is somewhat unexpected. However, locative goal constituents are normally unmarked, as illustrated in (291), and do not take dative case marking (though they do sometimes take the postposition *díró* 'in, into'). Additionally, I have found at least one occurrence of a locative goal with accusative case marking, shown in (292), so this may be a possible function of accusative case.

- (291)    *kàsógò(\*rò)*            *dùrtúgì*  
              *kàsógò(\*=rò)*        *d-tùr-tú-gì*  
              market(\*=DAT)    1-go-P-IPFV  
              'We will go to the market.'

- (292) bònú gón ná kólàṅà sòtó  
 bònú Ø-gón-Ø ná kólò-a=ṅà Ø-sòtó-Ø  
 hoe 3.OBJ-take.IMV-2 and field-P=ACC 3.OBJ-go.to.IMV-2  
 'Take your hoe and go to (the) fields.'

In addition to the structures given in (287) and (288), the locative constituent can be made grammatically third person (such as with the noun *kʷòí* 'place'), in which case the object agreement marker automatically agrees with the first or second person theme, per the first constraint mentioned above. This is illustrated in (293) and (294).

- (293) kʷòí tàṅó ñṭfùgùrú  
 kʷòí tàṅó n-j-juguru  
 place 1S.POSS 2.OBJ-3-send  
 'He sent you to me/where I was.' [lit. 'He sent you (to) my place.']

- (294) kʷòí nómmà ḍḡùgùrú  
 kʷòí nóm=mà d-j-juguru  
 place 2S.POSS=DET 1.OBJ-3-send  
 'He sent me to you/where you were.' [lit. 'He sent me (to) your place.']

In the third possible animacy alignment of the two objects of a ditransitive verb, when both objects of a ditransitive verb are third person, the recipient occurs closer to the (clause-final) verb than the theme does (see examples (295) and (296)), and the theme occurs closer to the verb than the locative oblique does (see examples (297) and (298)). In the following examples, the relevant constituents are placed in square brackets, and semantic roles are noted in bold subscript small caps.

- (295) [dòfón òrkáṅà]<sub>THM</sub> [bòtúrù]<sub>REC</sub> jén  
 dòfón òrkó-a=ṅà bòtú=rù Ø-jén-Ø  
 lung goat-P=GEN cat=DAT 3.OBJ-give.IMV-2  
 'Give the lung of the goats to the cat.'
- (296) jòm nááná [èrìfì]<sub>THM</sub> [kúrfiárò]<sub>REC</sub> kàrànr̃ jénìrìgì  
 jòm nááná èrìfì kúrfi-á=rò Ø-karan-r̃ Ø-jén-r-gì  
 day every story child-P=DAT 3.OBJ-read-1 3.OBJ-give-1-IPFV  
 'Every day, I read a story (to my) children.'

- (297)    *térò*            *bàrà*            [*fòpámmà*            *dáá*]<sub>LOC</sub>            [*gàniǝǝá*]<sub>THM</sub>  
           *té=rò*            *bàrà*            *fòpám=mà*            *dáá*            *gàniǝǝ-a*  
           that=DAT    after    wire.basket=DET    on            charcoal-P  
           *dùdûr*            *ní*            *wíní*            *fùnîr*  
           Ø-dúd-r    ní            *wíní*            *fú-Ø-n-r*  
           3.OBJ-put-1    and    fire            light-3.OBJ-LV-1  
           ‘After that, I put charcoal pieces in the wire basket and lit a fire.’
- (298)    [*gòrú*            *sómmà*            *dáá*]<sub>LOC</sub>    [*gǝǝǝí*]<sub>THM</sub>            *náwò*  
           *gòrú*            *són=mà*            *dáá*            *gǝǝǝí*            Ø-j-ná(g)  
           house            3S.POSS=DET    on            straw.type            3.OBJ-3-put  
           ‘He put straw on his house.’

These data suggest that there exist two (sometimes conflicting) constraints in Dazaga for object agreement, based on two different (but often correlated; cf. Haspelmath 2007a) hierarchies: a ‘person’ hierarchy (299), and a ‘semantic role’ hierarchy (300) (where the > indicates ‘is more highly ranked than’).

- (299)    *Person Hierarchy*  
           1st/2nd > 3rd

- (300)    *Semantic Role Hierarchy*  
           recipient > theme > locative

When these two hierarchies conflict (such as with a first person theme and third person recipient; cf. (277)), the person hierarchy is ranked more highly and determines the outcome (that is, the person hierarchy will select the first person theme for object agreement).

Furthermore, the fact that object agreement markers can agree with recipients and themes, but not with locatives, motivates a distinction in Dazaga between objects and obliques (or, more broadly, non-objects). This distinction treats recipients and themes as objects, but locatives as obliques (or adjuncts).

When no hierarchical level in the person hierarchy is crossed (namely, when both objects are first or second person, or when both are third person), recipients exhibit patterns characteristic of primary objects, suggesting a ranking of recipient over theme in the Semantic Role Hierarchy (300). Kroeger (2005:62) gives four criteria for distinguishing primary objects from secondary objects. Two of these point to the recipient as the primary object in Dazaga: the object agreement marker agrees with the recipient rather than with the theme (all else being equal), and the recipient normally occurs closer to the verb than

the theme does.<sup>15</sup> A third criterion, which object can be promoted to subject through passivization, is not applicable in Dazaga.

However, the identification of the recipient as the primary object and the theme as the secondary object is not entirely clearcut, as Kroeger's fourth criterion suggests that the theme is the primary object. This criterion states that if one object is marked like the single object of a monotransitive clause, and the other gets special marking (such as dative), the specially marked object is likely the secondary object. Based on examples such as (283) and (284), this criterion would select the theme as the primary object and the recipient as the secondary object.<sup>16</sup>

Nevertheless, because two of Kroeger's criteria suggest that the recipient is the primary object, I have adopted that analysis here. These patterns of marking recipient and theme make Dazaga what Dryer (1986:815) calls a 'primary object language'.

Haspelmath (2007a:82) distinguishes between 'indirective' and 'secundative' alignment of the two objects in a ditransitive construction. These two patterns of alignment are represented in Figure 3 (following Haspelmath 2007a:82), where P stands for 'patient', T for 'theme', and R for 'recipient'. The ovals indicate that the semantic roles they encircle are marked in the same way by some morphology (either case marking or agreement morphology, or both).

Besides these two distinctions, ditransitive constructions can also exhibit a 'neutral' pattern, where neither P, T, or R receive distinctive marking. Two less common patterns, which are not always considered 'basic' alignment types (cf. Malchukov 2013:266; Haspelmath 2015:22) are the 'tripartite' pattern, where P, T, and R are each marked in a different way from each other, and the 'horizontal' pattern, where T and R are marked in the same way, but distinct from P (cf. Malchukov et al. 2010:5–7).

Dazaga does not follow any of these five alignment types, but, rather, exhibits what has been called 'mixed alignment' (Malchukov et al. 2010:10). In mixed alignment, 'flagging' (i.e. case or adpositional marking) conflicts with 'index-

15 Levin & Rappaport Hovav (2005:183) note, 'In double object type structures, the recipient often usurps from the theme certain of the morphosyntactic properties normally associated with a theme realized as a direct object, such as adjacency to the verb and control of pronominal agreement markers'.

16 Creissels (2005:61–62) describes the similar pattern in Kanuri, noting, 'this language shows a split between the case assigning properties of ditransitive verbs and their indexation properties'. Like Dazaga, Kanuri uses the same 'unique object [agreement] marker' (Creissels 2005:62) to agree with both the patient of a monotransitive verb and the recipient of a ditransitive verb.



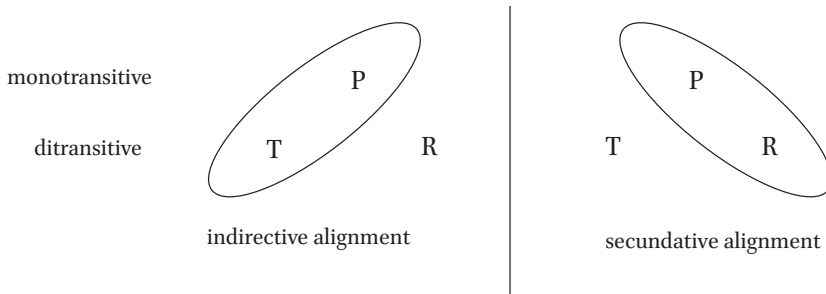


FIGURE 6.3 *Indirective versus secundative alignment.*

ing' (i.e. person/number agreement on the verb). In ditransitive constructions with mixed alignment, cross-linguistically, indexing is usually secundative (treating P and R in the same way) and flagging is usually indirective (treating P and T in the same way) (Malchukov et al. 2010:10; Haspelmath 2015:24; cf. Siewierska 2004:133–137). This asymmetry between flagging and indexing probably arises because 'case and adpositional marking is more sensitive to role properties, while cross-referencing and agreement is more sensitive to inherent prominence (animacy, definiteness)' (Malchukov et al. 2010:10).

The patterns of marking the two objects of ditransitive constructions in Dazaga match these cross-linguistic tendencies of mixed alignment. While mixed alignment itself is not uncommon, it usually involves neutral flagging; mixed alignment patterns in which case marking is dative, as in Dazaga, are ‘infrequent’ (Malchukov et al. 2010:10).

## 6.4 Non-Verbal Predicates

In this section I describe ‘non-verbal predicates’, including under this heading clauses with an existential predicate, but without another verb.<sup>17</sup> I do not here discuss clauses with an existential predicate and a progressive aspect main verb (cf. §5.6.3), which are verbal predicates. Rather than subdivide

17 I choose the term ‘existential predicate’ (cf. Pustet 2003:31) over ‘copula’ to refer to the verb *ɸii* (so identified because it takes verbal morphology and can be fully conjugated like a verb), whose meaning is ‘be’ or ‘exist’. This is because copulae are usually defined as lacking semantic content (cf. Roy 2013:22; Pustet 2003:5), and it is not clear that this is the case in Dazaga, where the negative existential predicate, at least, clearly includes the semantic content ‘not’ or ‘negation’. See Dryer (2007c:225–226) for further discussion of the term ‘copula’.

non-verbal predicates according to the syntactic category appearing in the predicate (adjectival, nominal, or locative constituent; cf. Dryer 2007c:224), I have grouped them based on the syntactic criterion of the presence or absence of an existential predicate. In the subsection on non-existential (non-verbal) clauses, I describe the semantically distinct, but syntactically similar, non-verbal predicates such as ‘predicational’, ‘specificational’, ‘identificational’, and ‘equative’, (cf. Roy 2013:8; Mikkelsen 2011; Higgins 1979:204–293). I describe existential clauses (including existential locatives) in a separate subsection.

#### 6.4.1 *Non-Existential Clauses*

Non-existential (non-verbal) clauses lack any verb or existential predicate (cf. Lukas 1953:170). Rather, they are composed of a subject and a following predicate noun phrase or adjective phrase, as illustrated in (301).

- (301)    *dínè*            *ónnó=ɲà*            *wòdó*  
           world            now=GEN.S            bad  
           ‘The present world (is) bad.’ [lit. ‘The world of now (is) bad.’]

As mentioned above, non-verbal predicates (or, more specifically, copular clauses in English) have often been divided into four groups based on semantic and syntactic criteria. I briefly summarize these criteria in Table 6.3 (adapted from Mikkelsen (2011:1810)).

TABLE 6.3    *Semantic subcategories of non-existential (non-verbal) clauses*

	Subject	Predicate
<b>Equative</b>	referential NP	referential NP
<b>Predicational</b>	referential NP	non-referential NP, AP
<b>Specificational</b>	non-referential NP	referential NP
<b>Identificational</b>	demonstrative	referential NP

These same four subcategories may be distinguished for non-existential clauses in Dazaga. In the following sections I briefly describe and illustrate each subcategory. For each category, negative clauses are formed by the addition of the negator *ɸí* ‘not’ at the end of the positive clause, as in (302), rather than by the normal negative verbal suffix *-ní* ‘NEG’ (cf. §7.3.1).

- (302) àmán            ìní            kǐjǎí      ʃíí  
 confidence    thing    easy    NEG  
 ‘Confidence (is) not an easy thing.’

#### 6.4.1.1 Equative

In equative clauses, two referring noun phrases are equated, or claimed to be coreferential, as in (303) and (304).

- (303) àrǐí            àì            ájá            nír  
 woman    this    mother    1S.POSS  
 ‘This woman (is) my mother.’

- (304) ájá            nírò            éréí            sómà            déré  
 ájá            nír=ò            éréí            són=mà            déré  
 mother    1S.POSS=DET    little.sister    3S.POSS=DET    maternal.aunt  
 nír  
 nír  
 1S.POSS  
 ‘My mother’s little sister (is) my aunt.’

#### 6.4.1.2 Predicational

Predicational clauses attribute a characteristic to or predicate a characteristic about the subject constituent. The predicate constituent may be either a non-referential noun phrase, as in (305), or an adjective phrase, as in (306) to (308).

- (305) ájá            nóm=mà            àrǐí            gǎlì  
 mother    2S.POSS=DET    woman    good  
 ‘Your mother (is) a good woman.’

- (306) àlām            lǎrdò            sǒntó=ɲà            màró=jè            ʦʃòó=jè  
 flag    country    3P.POSS=GEN.S    red=and    white=and  
 ‘(The) flag of their country (is) red and white.’

- (307) àì            gǎlì            ʃíí  
 this    good    not  
 ‘This (is) not good.’<sup>18</sup>

18 I originally categorized this example as identificational because of the deictic demonstrative subject (Mikkelsen 2011:812); however, because the predicate is an adjective phrase, it should be categorized as predicational.

- (308) dínàà            mèré    éǵínírù        tùkùlí  
           dínè=à        mèré    éǵíní=rù        tùkùlí  
           world=DET    3S        shape=DAT    round  
           'The world, it (is) round in shape.'

When adjectives occur in predicate position (as in other positions), they agree with the subject for number, as illustrated in (309) and (310), where *ǵǵílí* 'shirt' and *ǵǵlà* 'pretty' are singular, and *jálà* 'fruits' and *ǵǵóssà* 'good' are plural.

- (309) ǵǵílí        sómmà            bórò        ǵǵlà  
           ǵǵílí        sòn=mà            bórò        ǵǵlà  
           shirt        3S.POSS=DET    very        pretty  
           'Her shirt (is) very pretty.'
- (310) àrkín        jálà            sònà            ǵǵóssà  
           àrkín        jǵlì-a        sòn-a            ǵǵóssò-a  
           tree.type    child-P        3S.POSS-P        good-P  
           'Arkin (tree), its fruits (are) good.'

Certain non-locative postpositional phrases can also occur in predication clauses, as illustrated in (311), where the postpositional phrase *bíní kégé* 'like today' occurs in predicate position.

- (311) d̥ǵúkùr    bíní        kégé        ǵíí  
           never        today        like        NEG  
           'It was never like today.'

Predicational clauses are negated by the negator *ǵíí*, as illustrated in (312) and (313).

- (312) mèrí        sómmà            dílí        ǵíí  
           mèrí        sòn=mà            dílí        ǵíí  
           speech        3S.POSS=DET    just        not  
           'His speech is not just/right/accurate.'
- (313) dòwál        jégààǵà            dábbà        ǵíí  
           dòwál        jégè=à=ǵà        dábbà        ǵíí  
           center.post    house=DET=GEN    strong        not  
           'The center post of the house is not strong.'

## 6.4.1.3 Specificational

Specificational clauses are used to ‘specify who (or what) someone (or something) is, rather than to say anything about that person (or entity)’ (Mikkelsen 2011:809). In this way, they are very similar to equative clauses, differing primarily by the motivation of the statement (though the subject constituent of a specificational clause is perhaps more likely to include a relative clause). Specificational clauses are illustrated in (314) and (315).

- (314) ámmá g<sup>w</sup>ǎnáà fǽppògà dèéǹà  
 ámmá g<sup>w</sup>ǎní-a=à Ø-j-jób-t-gì-à dèéǹì-a  
 men camel-P=DET 3.OBJ-3-buy-P-IMP=DET brother-P  
 níráà  
 ní-r-a=à  
 1S.POSS-P=DET  
 ‘The men who are buying the camels are my brothers.’

- (315) àǒ g<sup>w</sup>ǎnóò fǽbògà làó ní  
 àǒ g<sup>w</sup>ǎní=ò Ø-j-jób-gì-à làó ní  
 man camel=DET 3.OBJ-3-buy-IMP=DET friend 1S.POSS  
 ‘The man who will buy the camel is my friend.’

## 6.4.1.4 Identificational

Identificational clauses are non-existential (non-verbal) clauses whose subject is a demonstrative functioning deictically (Mikkelsen 2011:812), and whose predicate constituent is a referring noun phrase, as in (316) to (318) (cf. Roy 2013:9).

- (316) árá ginná nǎǎ  
 árá ginná nóm=mà  
 these all 2s.poss=DET  
 ‘All these (things are) your (things).’

- (317) àì dùrú bìrgàò  
 àì dùrú bìrgí-a=ò  
 this row brick-P=GEN.S  
 ‘This (is) a row of bricks.’

- (318) àì èlé òlòú=ù  
 this thorn tree.type=GEN.S  
 ‘This (is) a thorn of the “olowu” tree.’

### 6.4.2 Existential Clauses

Existential clauses have been defined as a ‘specialized or non-canonical construction which expresses a proposition about the existence or the presence of someone or something’ (McNally 2011:1830). Though not syntactically ‘non-canonical’ as far as word order and subject agreement, existential clauses in Dazaga are syntactically distinguished from non-existential (non-verbal) clauses by the presence of the existential predicate *ɸĩĩ* ‘to be’, or its negative counterpart *bèĩ* ‘to not be’. Non-verbal locative clauses are often considered a type of existential clause (cf. Dryer 2007c:238–47), and this categorization is supported in Dazaga by the presence of the existential predicate in locative clauses.

Structurally, existential clauses in Dazaga are similar to other clauses (verbal and non-verbal), with the subject occurring first, followed by the clause-final existential predicate, as illustrated in (319).

- (319)    *ɲĩĩ*                      *tìgìsɔ̀*                      *gègè*                      *bórò*                      *ɸĩĩ*  
           *ɲĩĩ*                      *Ø-tìgìsɔ̀=ɔ̀*                      *gègè*                      *bórò*                      *Ø-ɸĩĩ(g)*  
           rainy.season            3-happen=CNTG            malaria            much            3-be  
           ‘When it’s rainy season, there’s a lot of malaria.’

The existential predicate is conjugated like other verbs (an unusual situation in Africa, according to Creissels et al. (2008:131)), and so takes the plural marker when the subject of the existential clause is plural, as in (320), and also uses distinct subject agreement markers for the various persons, as illustrated in (321).

- (320)    *jégàà*                      *dúrtùrù*                      *màrá*                      *àgòzòó*                      *ɸĩĩkí*  
           *jégè=à*                      *d-túr-t=rù*                      *màrá*                      *àgòzòó*                      *Ø-ɸĩĩg-t*  
           house=DET            1-go-P=SUB            3P                      three                      3-be-P  
           ‘(When) we went (to) the house, they were three [i.e. ‘there were three of them’].’

- (321)    *tìntá*                      *gìnná*                      *ɸjóssòrò*                      *d̥ʒíkkí*  
           *tìntá*                      *gìnná*                      *ɸjóssò=rò*                      *d-ɸĩĩg-t*  
           1P                      all                      good=DAT                      1-be-P  
           ‘We all were (doing) well.’

Negative existentials are formed exactly like positive existentials, except that the negative existential predicate is used instead of the positive. As with the positive existential predicate, the negative existential predicate matches the number and person of the subject, as illustrated in (322) and (323).

- (322)    ìní                      állàrò                      bó                      bèí  
           ìní                      állà=rò                      bó                      Ø-bé(g)  
           thing                      God=DAT                      big                      3-be.not  
           'There is nothing bigger/greater than God.'

- (323)    fòrá                      òrò                      òròríá                      bèkkí  
           fòró-a                      òrò                      òrò-mí-a                      Ø-bég-t  
           cattle-P                      among                      bull-DIM-P                      3-be.not-P  
           'Among the cattle, there are no young bulls.'

Locative existentials, like other existential clauses, have the existential predicate rather than another verb (or nothing), as shown in (324).

- (324)    kólà                      òrò                      àríí                      bóró                      fíí  
           kólà-a                      òrò                      àríí                      bóró                      Ø-fíí(g)  
           field-P                      in                      grasshopper                      much                      3-be  
           'There are lots of grasshoppers in (the) fields.'

As with other existentials, the existential predicate in locative existentials is conjugated as singular or plural in agreement with the number of the subject (see examples (325) and (326)), and negative existential locative clauses use the negative existential predicate, in singular or plural form, as the subject requires (see examples (327) and (328)).

- (325)    kólú                      sómmà                      òrò                      dèṅkélí                      fíí  
           kólú                      sòn=mà                      òrò                      dèṅkélí                      Ø-fíí(g)  
           sauce                      3S.POSS=DET                      in                      potato                      3-be  
           'There is potato in his sauce.'

- (326)    ámmá                      ginná                      àgàró                      fíí-kí  
           ámmá                      ginná                      àgà=rò                      Ø-fíí-g-t  
           people                      all                      outside=DAT                      3-be-P  
           'All (the) people are outside.'

- (327)    kííí                      sómmà                      òrò                      ínníná                      bèí  
           kííí                      sòn=mà                      òrò                      ínníná                      Ø-bé(g)  
           intestines                      3S.POSS=DET                      in                      nothing                      3-be.not  
           'There's nothing in its intestines.'

- (328) dèéŋà          nírà          ginná          bèkkí  
          dèéŋà-a      nír-à          ginná          Ø-bég-t  
          brother-P   1S.POSS-P   all          3-be.not-P  
          ‘All my brothers are not (here).’ / ‘None of my brothers are here.’

Interestingly, locative existential clauses can be used even when the subject is specific and definite, as in (329).

- (329) gʷòní          sómmà          éǰé          díró          ǰíí  
          gʷòní          són=mà          éǰé          díró          Ø-ǰí(g)  
          camel      3S.POSS=DET   valley      in          3-be  
          ‘His camel is in the valley.’

Locative existential predicates are not used to express possession in Dazaga (cf. Stassen 2009:327). Rather, like many Nilo-Saharan languages (Stassen 2009:663–665), possession is expressed by a transitive verb meaning ‘have’ (cf. Stassen 2009:33–34), as in (330).

- (330) dàó          dáá          dīfíní          déi  
          dàó          dáá          dīfíní          Ø-j-téi  
          head      on          hair          3.OBJ-3-have  
          ‘He has hair on (his) head.’



## Sentence Types

In this chapter, I describe the structure and characteristics of different sentence types. There are various ways in which the terms ‘sentence type’ and ‘clause type’ are used (cf. Dryer 2007c:224). In this chapter, I use the term ‘sentence type’ to refer to the distinction between declarative/indicative (§7.1), imperative (§7.4), and interrogative (§7.5) sentence types (cf. König & Siemund 2007). Though not strictly issues of ‘sentence type’ as used in this chapter, I also include here a description of pro-sentences (§7.2) and negation (§7.3), as well as a description of a marked topic construction (§7.6) and focus (§7.7).

### 7.1 Indicative (Declarative)

Indicative clauses are strongly SOV, with only a few exceptions (cf. §7.7). Free pronouns may function as clausal constituents, as in (331), though they are often omitted (especially free subject pronouns) through pro-drop when they redundantly encode information already signaled by the obligatory subject and object agreement markers on the verb. This is illustrated in (331) and (332), where the person of the subject is signaled only by the first person subject agreement suffix on the verb and not additionally by a free pronoun subject constituent *tàní* ‘I’.

- (331) 

<i>mèréṅà</i>	<i>kákkàrdò</i>	<i>kòfùnr</i>
<i>mèré=ṅà</i>	<i>kákkàr=rò</i>	<i>kofu-Ø-n-r</i>
3S=ACC	book=DAT	fan-3.OBJ-LV-1

  
‘I fanned it with a book.’
- (332) 

<i>bíà</i>	<i>sómmà</i>	<i>àddí</i>	<i>zínèr</i>
<i>bíà</i>	<i>són=mà</i>	<i>àddí</i>	<i>zí-Ø-n-r</i>
salary	3S.POSS=DET	a.little	increase-3.OBJ-LV-1

  
‘I increased his salary a little bit.’

For more on the structure of indicative clauses, see Chapter 6.

## 7.2 Pro-Sentences

Pro-sentences, as defined by Schachter & Shopen (2007:31), are words which ‘are used in answering questions, and which are understood as equivalent to affirmative and negative sentences . . .’ In Dazaga, the affirmative pro-sentence, ‘yes’, is *śś*, as illustrated in the brief conversation in (333).

- (333) *tíí*            *bàfó=rà*  
          meal        ready=YNQ  
          ‘(Is) the meal ready?’
- śś*                *bàfò-ré*  
          yes          ready-ADJZ  
          ‘Yes, (it is) ready.’

The negative pro-sentences in Dazaga are *á?à* ‘no’ and *kìnná* ‘no’. The negative particle *kìnná* ‘no’ is specifically used to negate an incorrect suggestion/presupposition, or a misunderstanding, before offering a correction (i.e. a contra-expectation statement). These uses are illustrated in (334) and (335), respectively.

- (334) *dífa*            *n̄erogira*  
          *dífa*            *n-t̄er-gɪ=ra*  
          (place)        2-go-IPFV=YNQ  
          ‘Are you going to Diffa?’
- kìnná*            (pause)        *d̄ènní*  
          *kìnná*                            *d-t̄ér-ní*  
          NEG                            1-go-NEG  
          ‘No, I’m not going.’
- (335) *músà*        *òrkó*            *sóm̄mà*            *ǽǽbò*  
          *músà*        *òrkó*            *són=mà*            *Ø-j-jób*  
          (name)        goat            3S.POSS=DET    3.OBJ-3-buy  
          ‘Musa bought her goat.’
- kìnná*            (pause)        *wùì*  
          *kìnná*                            *wú-Ø-j*  
          NEG                            steal-3.OBJ-3  
          ‘No, he stole it.’

### 7.3 Negation

Studies of negation (e.g. Dahl 2011, 1979; Dryer 1988; Payne 1985) commonly distinguish between negation in indicative verbal clauses ('standard negation') and all other negation ('non-standard negation').<sup>1</sup> Since this parameter mostly correlates with the distinction in Dazaga between morphological (affixal) negation (cf. Dahl 2011:14) and (non-affixal) negation by particles, I have framed my description below using the terminology of 'standard negation' versus 'non-standard negation'. Dazaga does not exhibit what has been variously termed 'lexical negation' (cf. Dahl 2011:11, 14) or 'affixal negation' (cf. Zimmer 1964), namely, derivational negative affixes similar to English *in-*, *un-*, or *non-*.

#### 7.3.1 Standard Negation

Standard negation is expressed by the suffixation of *-ní* 'NEG' to the verb of the clause, as in (336). As illustrated in the following examples, the negative suffix always has a high tone and requires preceding low tones.

- (336)    bígì      állàì      dàgòní  
           bígì      állà=ì      Ø-j-dák-ní  
           sin      God=ERG      3.OBJ-3-want-NEG  
           'God doesn't want/like sin.'

The negative suffix *-ní* has two other allomorphs. The allomorph *-mí* occurs following [m], which happens with most verbs with a second person subject, as in (337).

- (337)    ìní      zòntó      d̥zúkùr      kìsìmmí  
           ìní      zòntó      d̥zúkùr      Ø-kís-m-ní  
           thing    bad      not.at.all      3.OBJ-do-2-NEG  
           'You didn't do anything bad at all.'

The allomorph *-dí* occurs (through denasalization) following [r] or [r̥], which happens with most verbs with a first person subject, as in (338).

<sup>1</sup> Auwera (2011:73) states that in standard negation, 'the scope of the negation is the entire clause, the clause is a declarative, its main predicate is a verb, and the negative strategy is a general (productive) one'. Negation which lacks 'any of these properties' is non-standard (Auwera 2011:73).

- (338) kòlú            góbálkàò            dàgìrdí  
           kòlú            góbálkì-a=ò        Ø-dák-r-ní  
           sauce        okra-P=GEN.S    3.OBJ-want-1-NEG  
           'I don't want okra sauce.'

Thus, while the three allomorphs are phonologically conditioned, they end up correlating very highly with the person of the subject, with *-ní* negating third person verbs, *-mí* negating second person verbs, and *-dí* negating first person verbs.

That this correlation is not due to the person of the subject, but to phonological conditioning, is demonstrated by the small number of *S<sub>p</sub>* verbs (cf. §5.5.2) that do not use the usual subject agreement affixes and therefore have verb-final phonological environments different from those of other verbs. Thus, with a first person *S<sub>p</sub>* verb, the verb does not end with *-r* '1' and so, unlike (338), does not occur with the negative suffix allomorph *-dí*, as demonstrated in (339), where the allomorph *-ní* is acceptable, but *-dí* is ungrammatical.

- (339) áǿ            kìnǿǿrò            gúrò            dùrtùní / \*dùrtùdí  
           áǿ            kìnǿǿ-rò            gúrò            d-túr-t-ní  
           provision    without=DAT    able.to    1-leave-P-NEG  
           'We can't leave without provisions.'

In addition to negating indicative clauses, the suffix *-ní* 'NEG' is used to form 'negative imperatives'.<sup>2</sup> These are identical in form to negated second person perfective indicative verb forms.<sup>3</sup> Thus, the form *tinnùmmí* in (340) could only be disambiguated by the broader context, etc. For this reason, it is perhaps preferable to refer to 'prohibitions' than to 'negated imperatives', since the verb forms in prohibitions do not display the distinctive signs of the imperative mood (cf. §5.7.5), though they are functionally prohibitions.

2 Though Auwera (2011:88) classifies 'prohibitive negation' as a kind of non-standard negation, I have included it under 'standard negation' because it employs the same negative suffix as standard negation.

3 Jakobi & Crass (2004) report the same identity of forms for negated second person perfective and prohibitive verbs in Beria. Kanuri has a similar pattern, but prohibitions also include a preceding negative particle, in addition to the negative suffix (cf. Ziegelmeyer 2009:18; Cyffer 2009:79; Cyffer 1998a:41; Hutchison 1981:131).

- (340) ǃǃírí tìnnùmmí  
 ǃǃírí Ø-tínn-m-ní  
 shout 3.OBJ-put-2-NEG  
 'You (sg.) didn't shout.' (indicative reading)

Additional examples of prohibitions (identified as such, without providing disambiguating context, because they were elicited as prohibitions) are provided in (341) through (343). See §7.3.2 for a description of mitigated prohibitions (using non-standard negation).

- (341) bààmmí  
 Ø-báb-m-ní  
 3.OBJ-hit-2-NEG  
 '(You [sg.]) Don't hit him!'

- (342) tòkàsòdòmmí  
 t-kás-t-m-ní  
 1.OBJ-follow-P-2-NEG  
 '(You [pl.]) Don't follow me!'

- (343) táblò dáá nààmmí  
 táblò dáá Ø-ná(g)-m-ní  
 table on 3.OBJ-put-2-NEG  
 '(You [sg.]) Don't put it on the table.'

### 7.3.2 *Non-Standard Negation*

Non-standard negation is used for non-verbal clauses (cf. §6.4), for contrastive (indicative) negation, and for mitigated prohibitions. The negator *ǃǃí* 'not' is used with non-existential non-verbal clauses, and the negative existential predicate *bèí* 'to not be' is used with existential clauses, as illustrated in (344) through (347).

- (344) àmán ìní kǐjái ǃǃí  
 confidence thing easy NEG  
 'Confidence (is) not an easy thing.'

- (345) áì gáli ǃǃí  
 this good not  
 'This (is) not good.'



- (350) só      ìní      àì      k̀is̀mmí  
só      ìní      àì      Ø-kís-m-ní  
not    thing    this    3.OBJ-do-2-NEG  
'You should not do this thing.' [lit. 'You shouldn't not do this thing']
- (351) ìní      àì      k̀is̀mmí  
ìní      àì      Ø-kís-m-ní  
thing    this    3.OBJ-do-2-NEG  
'Don't do this thing.'

Dazaga also has a few other negative particles, namely, *d̥ʒúkúr* ‘not at all’ (example (352)), and *íníná* ‘nothing’ (example (353)).

- (352)    ìní            zòntó        **d̥ʒúkùr**        k̀is̀ìmmí  
           ìní            zòntó        d̥ʒúkùr        Ø-kís-m-ní  
           thing        bad            not.at.all      3.OBJ-do-2-NEG  
           ‘You didn’t do anything bad at all.’ [lit. ‘You didn’t not at all do a bad  
           thing.’]
- (353)    **ínníná**            bèí  
           ínníná            Ø-bé(g)  
           nothing            3-be.not  
           ‘There’s nothing.’ [lit. ‘There’s not nothing.’]

As (350), (352), and (353) demonstrate, double negation is possible without yielding a positive interpretation. The particles *ḗsúkùr* ‘not at all’, *íníná* ‘nothing’, and *só* ‘not’ are negative polarity items (Giannakidou 2011; Hoeksema 2011), and cannot occur in clauses that lack some other negator. This is illustrated in (354) (cf. (353)).

- (354) \*    ínníná      fjií  
              ínníná      Ø-fji(g)  
              nothing    3-be  
              ('There's nothing.')

## 7.4 Imperatives, Hortatives, and Optatives

In this section, I deal with the clause structure of imperative, hortative, and optative verbs (for the morphology of imperatives, hortatives, and optatives, see

§5.7.5, §5.7.6, and §5.7.4, respectively). Like indicative clauses, imperative, hortative, and optative clauses are (s)OV, as illustrated in (355) to (357), respectively.

- (355) ìní      àì      èwé=rò      lán-Ø-Ø  
 thing    this    finger=DAT    touch.IMV-3.OBJ-2  
 ‘Touch this thing with your finger.’
- (356) dàzàgá      kàràntá  
 dàzàgá      kara-Ø-n-t-Ø-a  
 (lang.)      read-3.OBJ-LV-P-1-HORT  
 ‘Let’s read Dazaga.’
- (357) állàì      tùwèí      òrò      kòsònfjine  
 állà=i      tùwèí      òrò      kòsò-n-j-n-è  
 God=ERG    tree.type    in      throw-2.OBJ-3-LV-OPT  
 ‘May God cast you into the thorn trees.’

Whereas second person pronouns may appear as subjects in indicative clauses (as illustrated in (358)), imperative clauses do not have overt second person pronominal subjects. Significantly, not only do second person free pronoun subjects not occur in imperative clauses, but the second person subject agreement markers do not occur overtly for imperative forms, as illustrated in (359) and (360).

- (358) ñtà      àfí      tààmmí  
 ñtà      àfí      Ø-téi-m-ní  
 2S      luck    3.OBJ-have-2-NEG  
 ‘You don’t have (any) luck.’
- (359) òrò      tìgìsòò      jír  
 òrò      Ø-tìgìsòò      Ø-jír  
 noon    3-happen-CTNG    2-come.IMV  
 ‘When it’s noon, come.’
- (360) kòré      táso=ɲà      fùrúmù-Ø-Ø  
 lid      bowl=GEN.S    turn.over.IMV-3.OBJ-2  
 ‘Turn over the lid of the bowl.’



Singular and plural subjects are distinguished only by the absence or presence, respectively, of the plural marker *-t*, as illustrated in the contrast between (361) and (362) (cf. §5.7.5).

- (361) dīlén  
 dīlɛ-Ø-n-Ø  
 imitate.IMV-3.OBJ-LV-2  
 ‘(You [sg.]) Imitate him.’
- (362) dīléntò  
 dīlɛ-Ø-n-t-Ø  
 imitate.IMV-3.OBJ-LV-P-2  
 ‘(You [pl.]) Imitate him.’

Similar to imperatives, hortatives lack overt subject marking, either as free pronouns or as subject agreement markers. The plural number of the subject is indicated by the plural marker *-t*. These patterns are illustrated in (363).

- (363) kʷòí            nákíjárò            kījáírò  
 kʷòí            nák-j-n-gɪ=a=rò            kījáí=rò  
 place          sleep-3-LV-1PFV=DET=SUB          easy=DAT  
 jéntà  
 jé-n-t-Ø-a  
 converse-LV-P-1-HORT  
 ‘While he’s sleeping, let’s talk softly.’

Optative clauses, like indicative clauses, but unlike imperative and hortative clauses, have full subject agreement marking, whether or not the subject constituent also occurs as an overt clausal constituent, as illustrated in (364) and (365).

- (364) bíní            ánásàrò            jèjéntíré  
 bíní            ánásà=rò            jèjé-n-t-r-é  
 today          joy=DAT          converse-LV-P-1-OPT  
 ‘Today, may we converse with joy/joyfully.’
- (365) állà            gòfúrà            ñfféné  
 állà            gòfúrò-a            n-j-jén-é  
 God          forgiveness-P          2.OBJ-3-give-OPT  
 ‘May God grant you forgiveness.’

## 7.5 Interrogatives

### 7.5.1 *Yes/No Questions*

Yes/no questions are marked by the clause-final enclitic =*rà* and its allomorphs. The enclitic =*rà* 'YNQ' always occurs clause-finally, cliticizing to the final word whether it is a verb or a word from another grammatical category, as illustrated in (366), (367), (368) and (369), where it attaches to the existential predicate, a possessive pronoun (with a determiner), a derived adjective, and a verb, respectively.

- (366)    bùltírùm      ðìrɔ́      ǐí      ʔíí=rà  
              bùltírùm      ðìrɔ́      ǐí      Ø-ʔíí(g)=rà  
              cup            in          water    3-be=YNQ  
              'Is there water in the cup?'

- (367)    kúrʃí            nó m=má=rà  
              child          2S.POSS=DET=YNQ  
              'Is this your child?'

- (368)    ʔínnè            dʒàktì-ré=rà  
              door            close-ADJZ=YNQ  
              'Is the door closed?'

The yes/no question enclitic has an allomorph [mà] which occurs following a clause final [m], as illustrated in (369).

- (369)    ʃái            kɪsímà  
              ʃái            Ø-kɪs-m=rà  
              tea          3.OBJ-make-2=YNQ  
              'Did you make tea?'

### 7.5.2 *Content Questions*

Interrogative pro-forms, or '*wh*-words', are words that stand in for the questioned constituents in an interrogative sentence (König & Siemund 2007:302). The most common interrogative pro-forms are presented in Table 7.1.

TABLE 7.1 *Interrogative pro-forms*

<b>Who</b>	jàá	<b>Where</b>	kòó / kònó
<b>What</b>	ínní	<b>Why</b>	íṣà
<b>When</b>	kìnná / lókò	<b>How</b>	—
<b>Whose</b>	jàó	<b>Which</b>	nàà

*Wh*-words can occur *in situ*, or in preverbal position (what may be a focus slot; cf. §7.7), though adverbial phrases are often preposed. These alternate possibilities are illustrated in (370) and (371). In (370), the question word *ínní* ‘what’ occurs where the secondary object theme constituent normally would (i.e. *in situ*), preceding the primary object recipient constituent (cf. §6.3.3). In (371), on the other hand, *ínní* ‘what’ is moved to the preverbal position, following the primary object recipient constituent.

- (370) ábbà      nómmà      **ínní**      dèéṣì      nómmàrò  
 ábbà      nómmà      ínní      dèéṣì      nómmàrò  
 father      2S.POSS=DET      what      brother      2S.POSS=DET=DAT  
 fḡén  
 Ø-j-jén  
 3.OBJ-3-give  
 ‘What did your father give to your brother?’

- (371) ábbà      nómmà      dèéṣì      nómmàrò      **ínní**  
 ábbà      nómmà      dèéṣì      nómmàrò      ínní  
 father      2S.POSS=DET      brother      2S.POSS=DET=DAT      what  
 fḡén  
 Ø-j-jén  
 3.OBJ-3-give  
 ‘What did your father give to your brother?’

The same pattern is exhibited for subject constituents. When a subject constituent is questioned, the question word can appear *in situ* or in the preverbal slot, following the object(s), in an inversion of the normal SO order. This is illustrated in (372) to (375).

- (372) **jégè**      **ái**      **ɲàái**      **ɸʒbò**  
           **jégè**      **ái**      **ɲàá=i**      **Ø-j-jób**  
           house      this      who=ERG      3.OBJ-3-buy  
           ‘Who bought this house?’

- (373) **ɲàái**      **jégè**      **ái**      **ɸʒbò**  
           **ɲàá=i**      **jégè**      **ái**      **Ø-j-jób**  
           who=ERG      house      this      3.OBJ-3-buy  
           ‘Who bought this house?’

- (374) **èzòò**      **ɲàái**      **górò**  
           **èzí=ò**      **ɲàá=i**      **Ø-j-kór**  
           rope=DET      who=ERG      3.OBJ-3-cut  
           ‘Who cut the rope?’

- (375) **ɲàái**      **èzòò**      **górò**  
           **ɲàá=i**      **èzí=ò**      **Ø-j-kór**  
           who=ERG      rope=DET      3.OBJ-3-cut  
           ‘Who cut the rope?’

The presence of the ergative case marker is not always required for subjects of unmarked agentivity (i.e. not high or unexpected; cf. §6.2.1), as illustrated in (376) with *tàbí* ‘buy’, where the subject *músà* ‘Musa’, lacks the ergative case enclitic.

- (376) **músà**      **òrkó**      **sómmà**      **ɸʒbò**  
           **músà**      **òrkó**      **són=mà**      **Ø-j-jób**  
           (name)      goat      3S.POSS=DET      3.OBJ-3-buy  
           ‘Musa bought her (another person’s) goat.’

However, when even subjects of unmarked agentivity are questioned, the question word must bear ergative case marking. Its absence is ungrammatical, whether the question word occurs *in situ* or in the preverbal position, as illustrated in (377) to (378).

- (377) **ɲàái/\*Ø**      **jégè**      **ái**      **ɸʒbò**  
           **ɲàá=i/\*Ø**      **jégè**      **ái**      **Ø-j-jób**  
           who=ERG/\*Ø      house      this      3.OBJ-3-buy  
           ‘Who bought this house?’

- (378) jégè àì pàáì/\*Ø fǽbò  
 jégè àì pàá=ì/\*Ø Ø-j-jób  
 house this who=ERG/\*Ø 3.OBJ-3-buy  
 'Who bought this house?'

For primary objects and possessors of primary objects, the preverbal position is the same as *in situ*, as illustrated in the following three pairs of examples ((379) to (384)), where question and answer pairs are given, showing that the *wh*-words often occur in the same place as the words they question.

- (379) àǽmà ínní fǽbò  
 àǽ=mà ínní Ø-j-jób  
 man=DET what 3.OBJ-3-buy  
 'What did the man buy?'

- (380) àǽmà jégè fǽbò  
 àǽ=mà jégè Ø-j-jób  
 man=DET house 3.OBJ-3-buy  
 'The man bought a house.'

- (381) àǽmà kútúbù pàárò fǽn  
 àǽ=mà kútúb=ù pàá=rò Ø-j-jén  
 man=DET book=DET who=DAT 3.OBJ-3-give  
 'To whom did the man give the book?'

- (382) àǽmà kútúbù dèéǽì sómmàrò fǽn  
 àǽ=mà kútúb=ù dèéǽì sòn=mà=rò Ø-j-jén  
 man=DET book=DET brother 3S.POSS=DET=DAT 3.OBJ-3-give  
 'The man gave the book to his brother.'

- (383) àǽmà gʷǽní pàáò wúi  
 àǽ=mà gʷǽní pàá=ò wú-Ø-j  
 man=DET camel who=GEN steal-3.OBJ-3  
 'Whose camel did the man steal?'

- (384) àǽmà gʷǽní dèéǽì níròò wúi  
 àǽ=mà gʷǽní dèéǽì nír=ò=ò wú-Ø-j  
 man=DET camel brother 1S.POSS=DET=GEN steal-3.OBJ-3  
 'The man stole my brother's camel.'

In non-existential non-verbal interrogative clauses, the question word occurs before the predicate adjective, noun, or postpositional phrase. Thus, in (385), the postpositional phrase *tàníjè ñtájè òíró* ‘between me and you’ is preposed, and the *wh*-word *jàá* ‘who’ occurs in the subject slot relative to the predicate adjective *bó* ‘big’.

- (385) *tàní=jè    ñtá=jè    òíró    jàá    bó*  
 1S=and    2S=and    in    who    big  
 ‘Between me and you, who (is) bigger?’

In ‘where’ questions, the *wh*-word *kòó* ‘where’ usually follows the subject constituent.<sup>4</sup> Thus, in (386), *kòó* ‘where’ follows *ábbà nómmà* ‘your father’, as the locative clause in an (indicative) existential locative clause often does. In (386), the existential predicate and the locative postpositional phrase are replaced by the question word. The answer to such a question would include the existential predicate, as well as a locative constituent, as in (387).

- (386) *ábbà    nómmà    kòó*  
*ábbà    nóm=mà    kòó*  
 father    2S.POSS=DET    where  
 ‘Where’s your father?’

- (387) (*ábbà    níró*)    *jéjàà    òíró    ńńí*  
 (*ábbà    nír=ò*)    *jéjè=a    òíró    Ø-ńńí(g)*  
 (father    1S.POSS=DET)    house=DET    in    3-be  
 ‘My father is in the house.’

Questions using *kòó* ‘where’ can also be formed using the adverbial phrase *kòónórò* ‘where’, as in (388). As indicated by the asterisk preceding the material in parentheses, in this construction the existential predicate obligatorily co-occurs with the question word (that is, it is not optional).

- (388) *ábbà    nómmà    kòónórò    \*    (ńńí)*  
*ábbà    nóm=mà    kòónó=rò    Ø-ńńí(g)*  
 father    2S.POSS=DET    where=DAT    3-be  
 ‘Where’s your father?’

4 However, Kevin Walters (p.c.) has informed me that *kòó* ‘where’ can often occur clause-initially, with no apparent change in meaning.

If the object of a postpositional phrase is questioned, the *wh*-word occurs in the place where the object of a postposition would have occurred in an indicative clause (that is, preceding the postposition). This is illustrated in (389) and (390), where the question word *ínní* ‘what’ precedes the postpositions *kégé* ‘like’ and *gór* ‘about’.

- (389) *gíní*      *sómmà*      *ínní*      *kégé*  
*gíní*      *són=mà*      *ínní*      *kégé*  
 color    3S.POSS=DET    what    like  
 ‘What color is it?’ [lit. ‘Its color (is) like what?’]

- (390) *jàó*      *sómmà*      *ínní*      *gór*  
*jàó*      *són=mà*      *ínní*      *gór*  
 price    3S.POSS=DET    what    about  
 ‘How much does it cost?’ [lit. ‘Its price (is) about what?’]

Questions that in English are typically expressed by the question word ‘how’ are expressed by postpositional phrases, by dative adverbial phrases, or by means of other question words, as illustrated in (391), (392), and (393), respectively.

- (391) *d̥ʒóú*      *nóm=mà*      *ínní*      *kégé*  
 spirit    2S.POSS=DET    what    like  
 ‘How do you feel?’ [lit. ‘What is your spirit like?’]

- (392) *ǎú*      *ài=ɲà*      *kònó=rò*      *bâ*      *nóm*  
 man    this=GEN.S    where=DAT    relation    2S.POSS  
 ‘How are you related to this man?’

- (393) *dàzágàrò*      *arbre*      *ńtò*      *ínní*  
*dàzágà=rò*      *arbre*      Ø-j-n-t      *ínní*  
 (language)=DAT    tree    3.OBJ-3-say-P    what  
 ‘How do you say “tree” in Dazaga?’

## 7.6 Marked Topic (Left-Dislocation)

In this section I describe a marked topic construction accomplished via left-dislocation of nominal constituents (cf. Kroeger 2004:137–8). Left-dislocation constructions are distinguished from topicalization by the resumptive pronoun in left-dislocation constructions (as opposed to the gap left in topicalization;

cf. Kroeger 2004:138; Gregory & Michaelis 2001:1667). In these marked topic constructions, the marked topic is fronted (left-dislocated), and a resumptive pronoun takes the place of the left-dislocated constituent in the clause structure, as illustrated in example (394), where the left-dislocated constituent and resumptive pronoun are co-indexed and occur in square brackets.

- (394) [àwá àì]<sub>i</sub>    ɸjòssò    [sóm mà]<sub>i</sub>    àdǎí  
          àwá    àì    ɸjòssò    sòn=mà    àdǎí  
          game    this    good    3S.POSS=DET    little  
          ‘This game, its fun is small.’ [free: ‘This game’s not very fun.’]

This left-dislocation is possible across the hierarchy of constituents, including subject, primary object, oblique, possessor, and adjunct. Left-dislocation of these constituents is illustrated in examples (395) to (399), respectively. In each example, the left-dislocated constituent and the resumptive pronoun are in bold type.

- (395) *Left-dislocation of subject*  
          àǒ    àì    mǎré    dókǎré    ɸzúkùr    jǎjǎnní  
          àǒ    àì    mǎré    dókǎ-ré    ɸzúkùr    jeje-j-n-ní  
          man    this    3S    be.silent-ADJZ    never    converse-3-LV-NEG  
          ‘This man, he (is) silent; he never converses.’

- (396) *Left-dislocation of primary object*  
          ábbà    nírò    górsà    nírò    ginná    mǎré-rò  
          ábbà    nír=ò    górsò-a    nír=ò    ginná    mǎré=rò  
          father    1S.POSS=DET    money-P    1S.POSS=DET    all    3S=DAT  
          jénìr  
          Ø-jén-r  
          3.OBJ-give-1  
          ‘My father, I gave him all my money.’

- (397) *Left-dislocation of oblique (instrument)*  
          ɸzàná    àì    wóní    mǎré-rò    àrànìr  
          ɸzàná    àì    wóní    mǎré=rò    àrà-Ø-n-r  
          knife    this    sheep    3S=DAT    slaughter-3.OBJ-LV-1  
          ‘This knife, I slaughtered a sheep with it.’



(398) *Left-dislocation of possessor*

àǫ      àì      mí      sómmà      dùrúsù  
 àǫ      àì      mí      sòn=mà      dùrúsù  
 man      this      son      3S.POSS=DET      tall  
 'This man, his son is tall.'

(399) *Left-dislocation of adjunct (locative)*

kólò      àì      ñàhílà      mèré      òrò      bórò      líì  
 kólò      àì      ñàhílà      mèré      òrò      bórò      lí-j  
 field      this      millet      3s      in      much      grow-3  
 'This field, the millet is growing a lot in it.'

The left-dislocation of possessors is particularly common and is further illustrated in examples (400) and (401).

(400) àrkin      jálà      sònàà      fǫssà  
         àrkin      jàlì-a      sòn-à=à      fǫssò-a  
         tree.type      child-P      3S.POSS-P=DET      good-P  
         'Arkin (tree), its fruits (are) good.'

(401) àrìí      àì      sómmà      násò  
         àrìí      àì      sòn=mà      Ø-nás  
         woman      husband      3S.POSS=DET      3-die  
         '(The) woman, her husband died.'

It is also possible to left-dislocate 'heavy' constituents, that is, those with an embedded clause. This is illustrated in (402), where the left-dislocated possessor contains an embedded relative clause (shown in square brackets).

(402) àpìí      [mèréjà      bàráíjàà]      sóró  
         àpìí      mèré=jà      bara-Ø-j-n-gɪ=a      sóró  
         man      3S=ACC      search-3.OBJ-3-LV-IPFV=DET      name  
         sómmà      júsùf  
         sòn=mà      júsùf  
         3S.POSS=DET      (name)  
         'The man whom he is searching for, his name is Yusuf.'

## 7.7 Focus

Dazaga's word order is fairly strictly SOV, but the order OSV is also occasionally attested (cf. the similar claims for Kanuri (e.g. Hutchison 1986:192) and Beria/Zaghawa (e.g. Jakobi 2006)). As noted in §6.2.1, the ergative case enclitic is not obligatory (in the sense that it does not occur on every transitive subject), and several factors affect its distribution (see the more detailed description in §6.2.1). One use of the ergative case enclitic is to mark transitive subjects when there is an inversion of the subject and object constituents of a clause (OSV order). In this usage, the ergative case enclitic is required, as illustrated in (403) (cf. (377) and (378)).

- (403) kòg<sup>w</sup>ǝjà      nómà      èlíì/\*Ø      góì  
          kòg<sup>w</sup>ǝjè-a      nóm=mà      èlí=i/\*Ø      gó-Ø-j  
          chicken-P      2S.POSS=DET      sparrowhawk=ERG/\*Ø      take-3.OBJ-3  
          'A *sparrowhawk* took your chickens.'

Lukas (1953:165) explains the occurrence of the ergative case enclitic on subjects in clauses with OSV order as motivated by a need to disambiguate grammatical relations (cf. Lukas (1937:17) for a similar explanation of the same phenomenon in Kanuri). However, this does not seem to be the (only) motivation, since the grammatical relations of the nominal constituents are not always ambiguous in OSV clauses, and yet, the ergative case enclitic occurs on immediately preverbal subjects when there is no need to disambiguate grammatical relations of subject and object. This is illustrated in (404), where the object is already distinguished from the subject by the presence of the accusative case enclitic =gà, and yet the absence of the ergative case enclitic is ungrammatical.

- (404) kòg<sup>w</sup>ǝjè      sómmàgà      kǝìì/\*Ø      góì  
          kòg<sup>w</sup>ǝjè      sòn=mà=gà      kǝì=i/\*Ø      gó-Ø-j  
          chicken      3S.POSS=DET=ACC      bush.cat=ERG/\*Ø      take-3.OBJ-3  
          'It was the bush cat who took his chicken.'

Below, I propose a (tentative) focus analysis of subject constituents moved to the immediately preverbal position and marked with the ergative case enclitic.<sup>5</sup> I also note difficulties with this analysis. Focus is not encoded by tone; I have not studied intonation patterns in relation to focus.

5 Significantly, Wolfe & Adam (2015) demonstrate that the (optional) ergative case enclitic in Beria is used with focused subject constituents.

The term ‘focus’ has been variously defined as the ‘new information’ in a clause (Foley 2007:403), ‘the portion of a proposition which cannot be taken for granted at the time of speech’ (Lambrecht 1994:207), or ‘that part of the utterance that is at issue’ (Kroeger 2014c:4; cf. Clopper & Tonhauser 2011). In English and French, one of the ways that focus can be signaled is through a clefted sentence (as reflected in some of the free translations below).

When the subject constituent of a transitive clause is focused, the focused element is optionally moved to the immediately preverbal position, a focus position common in SOV languages (Kim 1988).<sup>6</sup> When the subject is moved to this focus position, it is obligatorily marked by the ergative case enclitic =*ì* (cf. example (403)). This is illustrated in the question and response pairs in (405) and (406), in (407), which has contrastive focus on the subject constituent, and in (408) and (409).

- (405) èzòò            ɲàáì            górò  
          èzí=ò        ɲàá=ì        Ø-j-kór  
          rope=DET    who=ERG    3.OBJ-3-cut  
          ‘Who cut the rope?’

         èzòò            mí        níròì                            górò  
          èzí=ò        mí        nír=ò=ì                      Ø-j-kór  
          rope=DET    son       1S.POSS=DET=ERG       3.OBJ-3-cut  
          ‘My son cut the rope.’

- (406) gʷòní            sómmà                            ɲàáì            wùì  
          gʷòní            sòn=mà                           ɲàá=ì            wú-Ø-j  
          camel        3S.POSS=DET                who=ERG        steal-3.OBJ-3  
          ‘Who stole his camel?’

         gʷòní            sómmà                            dèéɲì            níròì                            wùì  
          gʷòní            sòn=mà                           dèéɲì            nír=ò=ì                      wú-Ø-j  
          camel        3S.POSS=DET                brother       1S.POSS=DET=ERG       steal-3.OBJ-3  
          ‘My brother stole his camel.’

6 Other focus constructions, which do not involve case markers or the preverbal position, are reported in Kanuri (Wolff & Löhr 2006; Ziegelmeyer 2011). These focus constructions do not appear to have parallels in Dazaga.

- (407) (It wasn't a dog that bit my brother.)

dèéŋì	nírò	gʷònnî	wóì
dèéŋì	nír=ò	gʷòní=ì	wó-Ø-j
brother	1S.POSS=DET	camel=ERG	bite-3.OBJ-3

'It was a camel that bit my brother.'

- (408)
- |       |       |         |                |
|-------|-------|---------|----------------|
| ìní   | gìnná | állàì   | hèllíkì        |
| ìní   | gìnná | állà=ì  | hèllík-Ø-j     |
| thing | all   | God=ERG | create-3.OBJ-3 |
- 'It's God who created everything.'

- (409)
- |      |           |             |                |
|------|-----------|-------------|----------------|
| èkké | ḡḡrògú    | àrìàì       | dàkkóm         |
| èkké | ḡḡrògú    | àrìí-a=ì    | Ø-dág-t-m      |
| tree | tree.type | woman-P=ERG | 3.OBJ-like-P-2 |
- 'Women like the jububier tree.'

Focused primary object constituents normally occur in the immediately preverbal position, but, for primary objects, this is the same as *in situ*, given Dazaga's SOV word order. This is illustrated in (410) and (411) (cf. (379) to (382)).

- (410) (What did the man buy?)

àǵmà	jégè	ḡǵbò
àǵ=mà	jégè	Ø-j-jób
man=DET	house	3.OBJ-3-buy

'The man bought a house.'

- (411) (To whom did the man give the book?)

àǵmà	kútúbù	dèéŋì	sómmàrò	ḡjén
àǵ=mà	kútúb=ù	dèéŋì	són=mà=rò	Ø-j-jén
man=DET	book=DET	brother	3S.POSS=DET=DAT	3.OBJ-3-give

'The man give the book to his brother.'

Focused secondary objects, like focused subjects, may optionally move to the immediately preverbal position (from their normal position preceding the primary object), reversing the normal order of the primary and secondary objects. This is illustrated in (412).

- (412) (What did your father give to your brother?)

ábbà	nírò	dèéṣì	níròrò	kútúbgà
ábbà	nír=ò	dèéṣì	nír=ò=rò	kútúb=gà
father	1S.POSS=DET	brother	1S.POSS=DET=DAT	book=ACC
ṣṣén				
Ø-j-jén				
3.OBJ-3-give				
'My father gave a book to my brother.'				

In un-elicited sentences in my data (from texts and example sentences), subjects moved to the immediately preverbal position (and marked with =*i*) only occur in such focus constructions. However, some elicited sentences present complications for the analysis of preverbal subjects as focused constituents.

Specifically, in addition to their movement in focus constructions, transitive subjects can optionally be moved to the preverbal position when the subject is topical, and, therefore, not focused (assuming that 'a single element cannot function as both topic and focus at the same time' (Kroeger 2004:161–162)). This is illustrated in (413) to (416). In each of these examples, the subject is topical because of its mention in a preceding statement or question; nevertheless, the subject appears in the preverbal position (with ergative case marking). These forms do not seem to be the most preferred forms for replies/responses. My language consultant confirmed that these were grammatically correct, but did not himself produce these forms in elicited sentences.

- (413) (The dog didn't bite my brother.)

mí	nírò(gà)	kírù	wóì
mí	nír=ò(=gà)	kírí=ì	wó-Ø-j
son	1S.POSS=DET(=ACC)	dog=ERG	bite-3.OBJ-3
'The dog bit my son.'			

- (414) (What did Ibrahim do to the goat?)

òrkáà(gà)	ìbràhímì	ṣṣìrù
òrká=à(=gà)	ìbràhím=ì	Ø-j-jíd
goat=DET(=ACC)	(name)=ERG	3.OBJ-3-kill
'Ibrahim killed the goat.'		

(415) (What did the camel do to the boy?)

kàllóò(gà)	g <sup>w</sup> ǎnî	wóì
kàllí=ò(=gà)	g <sup>w</sup> ǎní=i	wó-Ø-j
boy=DET(=ACC)	camel=ERG	bite-3.OBJ-3

'The camel bit the boy.'

(416) (What did your son do?)

èzúù	mí	níròì	górò
èzí=ù	mí	nír=ò=i	Ø-j-kór
rope=DET	son	1S.POSS=DET=ERG	3.OBJ-3-cut

'My son cut the rope.'

The appearance of topical constituents in what otherwise seems to be a focus position, suggests that either the immediately preverbal position is not really a focus position (but, rather, is compatible with both focus and topic constituents) or that the topical and focused subjects are filling two distinct preverbal slots when moved from their normal clause-initial position. Further research is needed to confirm or refute the analysis of examples such as (403) through (409) as subject focus constructions.

## Clause Combinations

In this chapter, I describe Dazaga's patterns of clause combinations, categorizing these broadly under the terms coordination and subordination. I include causative constructions in the section on subordination because I analyze periphrastic causative constructions as biclausal. I also include in this chapter a third phenomenon, serial verb constructions, which are not strictly the combination of clauses, but which exhibit some similarities to clause combinations (such as the multiplicity of verbs) which warrant a separate treatment here. In the sections on clause coordination, I also include brief descriptions of other lower-level patterns of coordination.

Clause combinations have been studied from a variety of different perspectives, including syntax, pragmatics, and discourse (cf. e.g. Haiman & Thompson 1988; Fabricus-Hansen & Ramm 2008; Bril 2010). The focus in this chapter is syntactic description. I further subdivide clause subordination into complementation, relative clauses, and adverbial clauses.

### 8.1 Coordination

In this section on coordination, I examine conjunctive coordination ('conjunction'), disjunctive coordination ('disjunction'), and adversative coordination. While the primary focus of this section is on clausal coordination, I also briefly (and first) describe the basic patterns of phrasal coordination. In example sentences, coordinators are given in bold type. The categories and terminology employed in this section basically follow those of Haspelmath (2007b).

#### 8.1.1 Phrasal Coordination

The bisyndetic enclitic coordinator =jè 'and' is used for phrasal conjunction (except for verb and postpositional phrases). This is illustrated for both simple and more complex noun phrases in (417) and (418).

- (417)
- |                                      |          |             |
|--------------------------------------|----------|-------------|
| fírájè                               | képtíjè  | fǽbò        |
| fírí-a=jè                            | képtí=jè | Ø-j-jób     |
| arrow-P=and                          | bow=and  | 3.OBJ-3-buy |
| 'He bought arrows <b>and</b> a bow.' |          |             |

- (418) nèbá                      óṅkòàjè                      ámmá      állà  
 nèbí-a                      óṅkò=à=jè                      ámmá      állà  
 prophet-P      before=GEN.P=and      people      God  
 gásòtògàà                                      ginnájè      bígà      sòntáà  
 Ø-j-kás-t-gì=à                                      ginná=jè      bígì-a      sòntó-a=à  
 3.OBJ-3-follow-P-IPFV=DET      all=and      sin-P      3P.POSS-P=DET  
 ḍḍíkáà      òrózà                                      hálálà      sàrákìntò  
 ḍḍíkáà      òrózì-a                                      hálál-a      sàrák-Ø-j-n-t  
 because      domestic.animal-P      clean-P      sacrifice-3.OBJ-3-LV-P  
 'Because of their sins, the prophets of old **and** all people who followed  
 God sacrificed (ceremonially) clean animals.'

The coordinator =jè can also be used to coordinate the objects of postpositions (419), adverbs (420), and adjectives (421).

- (419) tàní=jè                      ntà=jè                      òró      nàá      bó  
 1s=and                      2s=and                      in      who      big  
 'Between me **and** you, who (is) bigger?'
- (420) níí                      ṅégí=ṅà                      ónnó=jè                      óṅkò=jè                      bóro      fíjá  
 town      (place)=GEN.S      now=and      before=and      very      different  
 'Nowadays the town of N'guigmi is very different from before.'  
 [lit. 'The town of N'guigmi, now **and** before, (is) very different.']
- (421) àlám      lárdò                      sòntó=ṅà                      màoó=jè                      fḍòó=jè  
 flag      country      3P.POSS=GEN.S      red=and      white=and  
 '(The) flag of their country (is) red **and** white.'

The conjunction of postpositional phrases with =jè 'and' (used for other phrasal conjunction) is ungrammatical, as demonstrated in (422). Rather, such conjunction must be at the verb phrase level, using ní 'and', as in (423). Verb phrase conjunction normally involves the monosyndetic use of ní 'and', occurring between the coordinated verb phrases (e.g. cf. examples (430) and (431)). In (423), where the verb is repeated, ní 'and' occurs bisyndetically, in second position within the verb phrase (i.e. following the postpositional phrases).

- (422) \* èíáà                      jégàà                      dáájè                      jìgáà                      òrójè                      tòiléntó  
 èíí-a=à                      jégé-a=à                      dáá=jè                      jìgé-a=à                      òró=jè                      Ø-toilen-t  
 rock-P      house=DET      on=and      well=DET      in=and      3-fall-P  
 ('The rocks fell on the house **and** into the well.')



- (423) èìáà      jégàà      dáá   ní      tòiléntó      jìgàà      dìró  
 èìí-a=à      jégè-a=à      dáá   ní      Ø-toilen-t      jìgé-a=à      dìró  
 rock-P      house=DET      on      and      3-fall-P      well=DET      in  
 ní      tòiléntó  
 ní      Ø-toilen-t  
 and      3-fall-P  
 ‘The rocks fell on the house **and** into the well.’

Lukas (1953:166) reports a monosyndetic use of =jè, illustrated in (424).<sup>1</sup> I have also encountered a single example of this same phenomenon in my own data, presented in (425). Besides the monosyndetic usage of =jè, it is worth noting that these examples exhibit different patterns as far as where the conjunction occurs relative to the two noun phrases, namely following the second noun phrase (424) or following the first noun phrase (425).

- (424) wídén      òrkó=jè  
 gazelle      goat=and  
 ‘a gazelle **and** a goat’  
 ‘Gazelle und Ziege’

- (425) ábbà      níròjè      dèéjì      nírò      g<sup>w</sup>óná  
 ábbà      nír=ò=jè      dèéjì      nír=ò      g<sup>w</sup>óní-a  
 father      1S.POSS=DET=and      brother      1S.POSS=DET      camel-P  
 fǽppò  
 Ø-j-jób-t  
 3.OBJ-3-buy-P  
 ‘My father **and** my uncle bought camels.’

Stassen (2000:14) claims that monosyndetic patterns of postposed conjunctions are often reduced variants of dominantly bisyndetic patterns. This appears to be the case in Dazaga, where the monosyndetic use of =jè is very rare and can occur in either of the positions filled by the bisyndetic usage, but doesn’t seem to differ in meaning from the bisyndetic pattern.

When multiple conjunction occurs, the coordinator =jè ‘and’ must be repeated with each coordinand. The omission of the coordinator is ungrammatical. These patterns are illustrated in (426) and (427) (cf. Lukas 1953:166).

<sup>1</sup> Stassen (2000:15; also Whaley (2011:474)) notes this same example in his discussion of postposed monosyndetic and polysyndetic conjunctions (using his terminology). Lukas (1953:166) gives several other examples of the same phenomenon.

- (426) làó            nírò            òrkójè            gʷòníjè            áskíjè  
          làó            nír=ò            òrkó=jè            gʷòní=jè            áskí=jè  
          friend    1S.POSS=DET    goat=and            camel=and            horse=and  
          fǽbò  
          Ø-j-jób  
          3.OBJ-3-buy  
          ‘My friend bought a goat, a camel, **and** a horse.’

- (427) \* làó            nírò            òrkó            gʷòní            áskíjè            fǽbò  
          làó            nír=ò            òrkó            gʷòní            áskí=jè            Ø-j-jób  
          friend    1S.POSS=DET    goat            camel            horse=and            3.OBJ-3-buy  
          (‘My friend bought a goat, a camel, **and** a horse.’)

Dazaga does not distinguish emphatic phrasal conjunction (i.e. *both...and* conjunction; cf. Haspelmath (2007b:15)) from regular phrasal conjunction. To translate emphatic phrasal conjunction from other languages, Dazaga uses a construction that is structurally identical to regular phrasal conjunction. The bisyndetic conjunctive coordinator =jè ‘and’ is used to coordinate the noun phrases, and the verb appears only once, as in (428). The coordinator ní ‘and’, used for clausal conjunction (cf. §8.1.2), and the particle ná ‘even, also’ are ungrammatical for emphatic phrasal conjunction, as demonstrated in (429).

- (428) fǽijè            ìijè            dàgír  
          fǽi=jè            ìi=jè            Ø-dák-r  
          tea=and            water=and            3.OBJ-want-1  
          ‘I want **both** tea **and** water.’

- (429) \* fǽi            ní            ìi            ní            dàgír  
          fǽi            ní            ìi            ní            Ø-dák-r  
          tea            and            water            and            3.OBJ-want-1  
          \* fǽi            ná            ìi            ná            dàgír  
          fǽi            ná            ìi            ná            Ø-dák-r  
          tea            also            water            also            3.OBJ-want-1  
          (‘I want **both** tea **and** water.’)

The monosyndetic coordinator ní ‘and’ is used for verb phrase conjunction, as in examples (430) and (431).

- (430) làó nírò g<sup>w</sup>òní d̥ʒásò ní òrkó ɸjǒbò  
 làó nír=ò g<sup>w</sup>òní Ø-j-ɸjás ní òrkó Ø-j-jǒb  
 friend 1S.POSS=DET camel 3.OBJ-3-sell and goat 3.OBJ-3-buy  
 'My friend sold a camel **and** bought a goat.'

- (431) jòm té awɔɸi ní bàbàɸɸĩ  
 jòm té awɔɸ-j ní babart-j  
 day that fear-3 and tremble-3  
 'That day, he was afraid **and** trembled.'

The phrasal conjunction =jè 'and' cannot be used for verb phrase conjunction, as demonstrated by comparing (430) with (432).

- (432) \* làó nírò g<sup>w</sup>òní d̥ʒàsójè òrkó  
 làó nír=ò g<sup>w</sup>òní Ø-j-ɸjás=jè òrkó  
 friend 1S.POSS=DET camel 3.OBJ-3-sell=and goat  
 ɸjǒbòjè  
 Ø-j-jǒb=jè  
 3.OBJ-3-buy=and  
 ('My friend sold a camel **and** bought a goat.')

As with English *and*, the coordinator *ní* 'and' can be understood to mean 'and then' by way of (generalized conversational) implicature. This implicature is illustrated in (433), where the speaker is not resting and walking simultaneously, but in sequence.

- (433) àdǎí ɸjónir ní dígánò  
 àdǎí ɸjò-n-r ní d-tígán  
 a.little rest-LV-1 and 1-walk  
 'I rested for a little while, **and (then)** walked (on).'

The coordinator *ná* 'also, and', rather than *ní* 'and', is used for the conjunction of imperatives. This is demonstrated in (434).

- (434) bònú gón ná/\*ní kólàṅà sòtó  
 bònú Ø-gón-Ø ná/\*ní kólò-a=ṅà Ø-sòtó-Ø  
 hoe 3.OBJ-take.IMV-2 and/\*and field-P=ACC 3.OBJ-go.to.IMV-2  
 'Take your hoe **and** go to (the) fields.'

Phrasal disjunction is expressed by means of the monosyndetic disjunctive coordinator *wàllá* ‘or’, as illustrated in (435) with noun phrases, and in (436) with verb phrases.

- (435)    *ɲégí*            **wàllá**    *dífà*            *dérìgì*  
             *ɲégí*            *wàllá*    *dífà*            *d-tér-gì*  
             (place)        or            (place)        1-go-IPFV  
             ‘I will visit N’guigmi **or** Difa.’

- (436)    *jégè*    *nírò*                      *dérìgì*        **wàllá**    *kàsógòrò*        *dòwózìgì*  
             *jégè*    *nír=ò*                      *d-tér-gì*        *wàllá*    *kàsógò=rò*        *d-bóz-gì*  
             house 1S.POSS=DET 1-go-IPFV or        market=DAT 1-stay-IPFV  
             ‘I’ll go to my house **or** I’ll stay at the market.’

Whereas English and French have explicitly exclusive disjunctive constructions (*either ... or* and *ou ... ou* or *soit ... soit*), this kind of disjunction is syntactically the same as regular disjunction in Dazaga, as demonstrated in (437), where the same monosyndetic disjunctive coordinator *wàllá* ‘or’ is used.

- (437)    *ǰàì*        **wàllá**        *ìí*            *dàgír*                      (*ǰǰírò*        *íí*)  
             *ǰàì*        *wàllá*        *ìí*            Ø-dák-r                      (*ǰǰírò*        *íí*)  
             tea        or            water        3.OBJ-want-1            (but        milk  
             *dàgìrdí*)  
             Ø-dák-r-ní)  
             3.OBJ-want-1-NEG)  
             ‘I want either tea **or** water (but I don’t want milk).’  
             ‘Je veux ou/soit du thé ou/soit de l’eau (mais je ne veux pas du lait).’

Many languages distinguish between disjunction in alternative questions and standard disjunction (Haspelmath 2007b:26). Dazaga does not exhibit this distinction. Rather, disjunction in alternative questions, like standard disjunction, is expressed with the disjunctive coordinator *wàllá* ‘or’, as demonstrated in (438).

- (438)    *áskí*            **wàllá**        *gʷòní*        *kìfì-ré*  
             horse        or            camel        speed-ADJZ  
             ‘Are horses **or** camels faster?’

Phrasal adversative coordination is ungrammatical, as illustrated in (439) and (440).<sup>2</sup>

- (439) làó            nírò            òrká            fǔúú            fǔbò            fǔírò  
          làó            nír=ò            òrkó-a            fǔúú            Ø-j-jób            fǔírò  
          friend    1S.POSS=DET    goat-P            two            3.OBJ-3-buy            but  
          gʷòní            tǎǎn            fǔbò  
          gʷòní            tǎǎn            Ø-j-jób  
          camel            one            3.OBJ-3-buy  
          ‘My friend bought two goats, **but** (only) one camel.’

- (440) \* làó            nírò            òrká            fǔúú            fǔírò            gʷòní            tǎǎn  
          làó            nír=ò            òrkó-a            fǔúú            fǔírò            gʷòní            tǎǎn  
          friend    1S.POSS=DET    goat-P            two            but            camel            one  
          fǔbò  
          Ø-j-jób  
          3.OBJ-3-buy  
          (‘My friend bought two goats, **but** bought (only) one camel.’)

### 8.1.2 Clausal Coordination

Clauses are conjunctively coordinated by the bisyndedetic use of the coordinator *ní* ‘and’. This is illustrated in (441) and (442). In clausal conjunction, *ní* ‘and’ occurs as a second position particle, following the first argument of the verb in each clause (note that the temporal adjunct *óṅkò* ‘before’ is not counted in determining the second position in (442)).

- (441) làó            nírò            ní            gʷòní            dǔàsó            tàní            ní  
          làó            nír=ò            ní            gʷòní            Ø-j-fǔás            tàní            ní  
          friend    1S.POSS=DET    and            camel            3.OBJ-3-sell    is            and  
          òrkó            jóbàr  
          òrkó            Ø-jób-r  
          goat            3.OBJ-buy-1  
          ‘My friend sold a camel, **and** I bought a goat.’

- (442) óṅkò            jálà            ní            fǔíkkí            dówá            ní            fǔíkkí  
          óṅkò            jálí-a            ní            Ø-fǔíq-t            dòú-a            ní            Ø-fǔíq-t  
          before            boy-P            and            3-be-P            girl-P            and            3-be-P  
          ‘Before, there were boys **and** there were girls.’

<sup>2</sup> See Vicente (2010) for a study of the syntax of adversative coordination.

Whereas *ní* ‘and’ is used monosyndetically for verb phrase coordination (see examples (430) and (431)), this usage is ungrammatical for clausal coordination, as demonstrated in (443).

- (443) \* làó níró gʷóní d̥zàsó ní tàní  
 làó ní-r=ò gʷóní Ø-j-ɸʃás ní tàní  
 friend 1S.POSS=DET camel 3.OBJ-3-sell and 1S  
 òrkó jóbìr  
 òrkó Ø-jób-r  
 goat 3.OBJ-buy-1  
 (‘My friend sold a camel, and I bought a goat.’)

What might be called ‘additive conjunction’ or ‘also-conjunction’, is formed in the same way as clausal conjunction. This is demonstrated in (444), where the coordinator *ní* ‘and’ must be used bisyndetically, again in the second position within a clause, following the first term of the clause’s verb. With the monosyndetic usage of *ní* ‘and’, the sentence is ungrammatical for the intended meaning, as illustrated in (445) (but would be grammatical for ‘I like meat and I like millet’).

- (444) jíní ní dàgír ṣàhílà ní dàgír  
 jíní ní Ø-dák-r ṣàhílà ní Ø-dák-r  
 meat and 3.OBJ-want-1 millet and 3.OBJ-want-1  
 ‘I like meat **and also** millet.’

- (445) \* jíní dàgír ní ṣàhílà dàgír  
 jíní Ø-dák-r ní ṣàhílà Ø-dák-r  
 meat 3.OBJ-want-1 and millet 3.OBJ-want-1  
 (‘I like meat **and also** millet.’)

Emphatic negative clausal coordination is structurally identically to emphatic conjunction, except that the repeated verb is negated, as illustrated in (446) and (447).

- (446) mǎrádí ní dàgǐrdí táwá ní dàgǐrdí  
 mǎrádí ní Ø-dák-r-ní táwá ní Ø-dák-r-ní  
 (place) and 3.OBJ-like-1-NEG (place) and 3.OBJ-like-1-NEG  
 ‘I don’t like **either** Maradi **or** Tahoua.’ / ‘I like **neither** Maradi **nor** Tahoua.’

- (447) *ḡàì ní dàgìrdí ìí ní dàgìrdí*  
*ḡàì ní Ø-dák-r-ní ìí ní Ø-dák-r-ní*  
 tea and 3.OBJ-like-1-NEG water and 3.OBJ-like-1-NEG  
 'I don't like **either** tea **or** water.' / 'I like **neither** tea **nor** water.'

In adversatively coordinated clauses, the adversative monosyndetic coordinator *ḡíírò* 'but' occurs between the two clauses. This is illustrated in examples (448) to (451).

- (448) *làú nírò òrkó ḡǒbò ḡíírò gʷòní*  
*làú nír=ò òrkó Ø-j-jób ḡíírò gʷòní*  
 friend 1S.POSS=DET goat 3.OBJ-3-buy but camel  
*ḡǒbòré bèí*  
*Ø-j-jób-ré Ø-bé(g)*  
 3.OBJ-3-buy-ADJV 3-be.not  
 'My friend bought a goat, **but** didn't buy a camel.'

- (449) *làú nírò òrkó ḡǒbò ḡíírò gʷòní*  
*làú nír=ò òrkó Ø-j-jób ḡíírò gʷòní*  
 friend 1S.POSS=DET goat 3.OBJ-3-buy but camel  
*dǒàsó*  
*Ø-j-ḡás*  
 3.OBJ-3-sell  
 'My friend bought a goat, **but** sold a camel.'

- (450) *jégàà bórò tàmanné ḡíírò tómòr*  
*jégè=a bórò tàman-ré ḡíírò Ø-tóm-r*  
 house=DET very expense-ADJZ but 3.OBJ-build-1  
 'The house was very expensive, **but** I built it (anyway).'  
 [or 'I built a house even though it was expensive.']

- (451) *gʷònóò wáfi ḡíírò jóbìrò dàgír*  
*gʷòní=ò wáfi ḡíírò Ø-jób-r=ɔ Ø-dák-r*  
 camel=DET ill but 3.OBJ-buy-1=CNTG 3.OBJ-want-1  
 'The camel is ill, **but** I (still) want to buy it.'  
 [or 'Even though the camel is ill, I'd like to buy it.']

Clausal disjunction is accomplished with the same coordinator, *wállá* ‘or’, as is used for phrasal disjunction, as demonstrated in (452).

- (452) dèéŋì      nírò                      jégè      ábbà      níròŋà  
          dèéŋì      nír=ò                      jégè      ábbà      nír=ò=ŋà  
          brother    1S.POSS=DET    house    father    1S.POSS=DET=GEN.S  
          térìgì      wállá      ábbà      nírò                      jégè      dèéŋì  
          Ø-tér-gì      wállá      ábbà      nír=ò                      jégè      dèéŋì  
          3-go-IPFV    or           father    1S.POSS=DET    house    brother  
          níròŋà                                      írìgì  
          nír=ò=ŋà                                      Ø-írì-gì  
          1S.POSS=DET=GEN.S    3-come-IPFV  
          ‘My brother will go to my father’s house, or my father will come to my brother’s house.

## 8.2 Subordination

Subordinate clauses may be broadly categorized by whether they are selected by a lexical head (complementation), modify a head noun (relative clauses), or modify a verb phrase or clause (adverbial clauses) (cf. Thompson et al. 2007:238; Kroeger 2005:219). I describe each of these types of subordination in more detail in the following sections.

Thompson et al. (2007) identify three primary strategies by which languages mark subordination, namely, by subordinating morphemes, special verb forms, and word order. Of these three strategies, only subordinating morphemes and special verb forms are attested as means of subordination in Dazaga.

### 8.2.1 *Complement Clauses*

Noonan (2007:52) defines complementation as the ‘syntactic situation that arises when a notional sentence or predication is an argument of a predicate’.<sup>3</sup> As is common in SOV languages, complement clauses in Dazaga precede the matrix verb. This is illustrated throughout the following examples.

Complement clauses can be formed by the addition of the determiner to the complement clause, as in (453), where the determiner =à is cliticized to the complement clause which functions as the object of the verb *mòní* ‘to know’.

3 Dixon (2006:1) defines complement clauses as clauses that take the place of a noun phrase as a core argument of a verb. Horie & Comrie (2000:1) simply define complementation as ‘predication manifested in argument slots’.



- (453) àgó dónà té kégé dèdìnáá m̀onim  
àgó dónà té kégé Ø-j-téi-t-ní=à Ø-m̀on-m  
then power that like 3.OBJ-3-have-P-NEG=DET 3.OBJ-know-2  
'You know **that** they don't have much power.'

With verbs of speech, the reported speech of the complement clause occurs preceding the verb of speech. This construction is illustrated in (454) and (455). The aspect (perfective) marking and subject agreement on the verbs in the complement clauses are the same as those of independent clauses.

- (454) m̀èrérò      fàì      dàgír      nír  
m̀èré=rò      fàì      Ø-dák-r      Ø-n-r  
3S=DAT      tea      3.OBJ-want-1      3.OBJ-say-1  
'I told him that I wanted tea.'
- (455) làwá      sònàà      írdò      dèéṇì      nírròrò  
làó-a      sòn-a=a      Ø-ír-t      dèéṇì      nírr-ò=rò  
friend-P      3S.POSS-P=DET      3-come-P      brother      1S.POSS=DET=DAT  
fádìr  
Ø-fár-r  
3.OBJ-say-1  
'I told my brother that his [my brother's] friends had come.'

Direct speech, though not a kind of complementation, is structurally identical to indirect speech, as demonstrated in (455) versus (456). It is distinguishable only by the context, or when direct speech distinctives are present, such as the imperative mood, illustrated in (457), or a shift in deictic reference (e.g. 'his' versus 'your' in (455) and (456)).

- (456) làwá              nǎ́á              írdò              dèéɲì              nírórò  
làò-a              nó-m-a=a              Ø-ír-t              dèéɲì              níf=ò=rò  
friend-P              2S.POSS-P=DET              3-come-P              brother              1S.POSS=DET=DAT  
fádìr  
Ø-fár-r  
3.OBJ-say-1  
'I said to my brother, "Your friends have arrived."
- (457) mèré̀rò              f̣ínnaà              lánò              níf  
mèré̀=ró              f̣ínnè=à              Ø-lánò-Ø              Ø-n-r  
3S=DAT              door=DET              3.OBJ-open.IMV-2              3.OBJ-say-1  
'I told him, "Open the door!"

With the verb *támái* ‘think, hope’, the complement clause is constructed like an independent clause would be. This is illustrated in (458) and (459), where the verbs in the complement clauses take the same aspect markers as independent indicative clauses.

- (458) làwá            nírà            írdò            tàmanír  
          làó-a            nír=a            Ø-ír-t            támá-Ø-n-r  
          friend-P    1S.POSS=P    3-come-P       think-3.OBJ-LV-1  
          ‘I thought my friends had come.’

- (459) dèéṅì            nírò            kórérò            írìgì            tàmanír  
          dèéṅì            nír=ò            kóré=rò            Ø-ír-gì            támá-Ø-n-r  
          brother    1S.POSS=DET    short=DAT    3-come-IPFV    hope-3.OBJ-LV-1  
          ‘I hope that my brother comes quickly.’

The verb *nàgí* ‘want’ takes a complement clause in the contingent mood, as illustrated in (460) to (463). Example (463) demonstrates that the verb *nàgí* ‘want’ allows its complement clause to have a subject distinct from the matrix clause subject.

- (460) g<sup>w</sup>ònòò            wáfì            fǽírò            jóbìrò            dàgír  
          g<sup>w</sup>óní=ò            wáfì            fǽírò            Ø-jób-r=ɔ            Ø-dák-r  
          camel=DET    ill            but            3.OBJ-buy-1=CONTG    3.OBJ-want-1  
          ‘The camel is ill, but I (still) want to buy it.’  
          [or ‘Even though the camel is ill, I’d like to buy it.’]

- (461) màrárò            ìní            tòwó            jénìrò  
          màrá=rò            ìní            tòó=ò            Ø-jén-r=ɔ  
          3P=DAT            thing            eat.INF=GEN    3.OBJ-give-1=CONTG  
          dàgírò            dǽínkàlò            fǽínàfá            jóbìr            jóbìr  
          Ø-dák-r=ò            dǽínkàlò            fǽínàfó-a            Ø-jób-r  
          3.OBJ-want-1=DET            because            rice-P            3.OBJ-buy-1  
          ‘I bought rice for them so that they would have something to eat.’  
          [lit. ‘Because I wanted to give them something to eat, I bought (them)  
          rice.’]

- (462) násárgá            finìrò            dàgír  
          násárgá            Ø-fin-r=ɔ            Ø-dák-r  
          (language)    3.OBJ-learn-1=CONTG    3.OBJ-want-1  
          ‘I want to learn French.’

- (463) mí nírò dàzàgá fíjòò  
 mí nír=ò dàzàgá Ø-j-fin-gì=o  
 son 1S.POSS=DET (language) 3.OBJ-3-learn-IPFV=CENTG  
 dàgír  
 Ø-dák-r  
 3.OBJ-want-1  
 'I want my son to learn Dazaga.'

The verbs *tièrí* 'to refuse' and *tàlòptí* 'order, command' take infinitive complements with the subordinator =*rò* (homophonous with the dative case enclitic =*rò*) as illustrated in examples (464) to (466). These examples demonstrate that the lack of the subordinator =*rò* is ungrammatical for complement clauses of these verbs. The asterisk outside of the parentheses indicates that the material in parentheses is obligatory (i.e. not optional).

- (464) mìněĩ\*(*rò*) fǽrò  
 mìněĩ\*(=*rò*) Ø-j-jér  
 beg.INF\*(=SUB) 3.OBJ-3-refuse  
 'He refused to beg.'
- (465) dèéjì sómmàgà tòó\*(*rò*) fǽrò  
 dèéjì sòn=mà=gà tòó\*(=*rò*) Ø-j-jér  
 brother 3S.POSS=DET=ACC bite.INF\*(=SUB) 3.OBJ-3-refuse  
 'He refused to bite his brother.'
- (466) èzúù (mèréì) kòrí\*(*rò*) tààlìmmór  
 èzí=ù (mèré=ì) kòrí\*(=*rò*) taalim-Ø-n-r  
 rope=DET 3S=ERG cut.INF\*(=SUB) order-3.OBJ-LV-1  
 'I ordered him to cut the rope.'<sup>4</sup>

Example (467) shows that the complement of *tàlòptí* 'order, command' cannot be a normal perfective indicative verb. Example (468) shows that the infinitive form of the negative existential predicate, *méní* 'to not be', must be used to

4 This example appears to include backward control. Fukuda (2008:168) defines backward control as a relationship 'where the matrix argument is silent and its identity depends on the overt embedded argument for its referent'. Polinsky & Potsdam (2002:257) similarly define backward control as a control relationship 'in which the controllee is structurally superior to the controller' (cf. Monahan 2003; Potsdam 2006).

negate the verb in the complement clause. Use of standard affixal negation in this context is ungrammatical, as demonstrated in (469).

- (467) \* èzùù                      górò                      tààlìmmór  
           èzí=ù                      Ø-j-kór                      taalim-Ø-n-r  
           rope=DET    3.OBJ-3-cut            order-3.OBJ-LV-1  
           ('I ordered him to cut the rope.')
- (468) mí            nírò                      dèéɲì                      sómmàgà  
           mí            nír=ò                      dèéɲì                      sòn=mà=gà  
           son            1S.POSS=DET    brother                      3S.POSS=DET=ACC  
           tòó            ménírù                      tààlìmmór  
           tòó            **méní**=rù                      taalim-Ø-n-r  
           bite.INF    not.be.INF=SUB    order-3.OBJ-LV-1  
           'I commanded my son not to bite his brother.'

- (469) \* mí            nírò                      dèéɲì                      sómmàgà  
           mí            nír=ò                      dèéɲì                      sòn=mà=gà  
           son            1S.POSS=DET    brother                      3S.POSS=DET=ACC  
           wòní                      tààlìmmór  
           Ø-j-bó-ní                      taalim-Ø-n-r  
           3.OBJ-3-bite-NEG    order-3.OBJ-LV-1  
           ('I commanded my son not to bite his brother.')

The verb *tòɲǝĩ* 'try' can take a complement clause with a bare infinitive complement clause verb, as in (470). The presence of the subordinator =*rò* is ungrammatical in this case. Example (471) demonstrates that the complement clause verb cannot be a regular indicative verb. The verb *tòɲǝĩ* 'try' can also take a complement clause verb with -*rɛ* 'ADJZ' (something like a participle), as in (472).

- (470) jíní            kòrí(\**rò*)                      dòɲǝsó  
           jíní            kòrí(\*=*rò*)                      d-tòɲǝsó  
           meat    cut.INF(\*=SUB)    1-try  
           'I tried to cut (some) meat.'
- (471) \* jíní            kòr                      dòɲǝsó  
           jíní            Ø-kór-r                      d-tòɲǝsó  
           meat    3.OBJ-cut-1                      1-try  
           ('I tried to cut (some) meat.')

- (472) m̀̀erí                      àì      éí                      d̀̀erìgìŕé                      d̀̀òṅ̀s̀ó  
           m̀̀erí                      àì      éí                      d-tér-gì-ŕé                      d-tòṅ̀s̀ó  
           current.year      this      pilgrimage      1-go-1PFV-ADJZ      1-try  
           ‘This year, I (will) try to go on the pilgrimage.’

The various strategies for forming complement clauses are summarized in Table 8.1.

TABLE 8.1 *Summary of strategies for forming complement clauses*

Complementation Strategy	Example Verbs
determiner	<i>m̀̀oní</i> ‘to know’
zero marking (indicative verb)	<i>n</i> ‘to say’, <i>t̀̀òfàrí</i> ‘to say’, <i>támáí</i> ‘think, hope’
contingent mood (=ḍ)	<i>nàgí</i> ‘want’
infinitive & subordinator =r̀̀ò	<i>t̀̀ierí</i> ‘to refuse’, <i>t̀̀àlòptí</i> ‘order, command’
bare infinitive	<i>t̀̀òṅ̀ḍí</i> ‘try’
indicative verb with -ŕé	

### 8.2.2 *Causative Constructions*

Causatives in Dazaga are either lexical (such as *jìdêr* ‘I kill’, i.e. ‘I cause to die’), light verb constructions, serial verb constructions, or periphrastic.<sup>5</sup> I have found no synchronic evidence for morphological causatives.

In contrast to the current state of the language, Lukas (1953:137–138) reported the existence of a morphological causative, followed by Bryan (1971:229–230). Nevertheless, even in his time, Lukas (1953:137) admitted an ‘extreme paucity of information’ on causatives, and stated that there was only the ‘the beginnings of a special causative formation’, and not an ‘established system’.

Of the causative forms that Lukas mentions, only one can be considered a truly morphological causative. Specifically, he lists the prefix *t-* as the causative morpheme for deriving causative forms from simple transitive verbs and simple *S<sub>a</sub>* verbs (which, combined, comprise Class 2 in the traditional analysis of the verb system). However, I have not found this causative prefix used to derive causative forms in causative clauses with simple verbs, but, rather, have always found periphrastic constructions used to form causative clauses with simple verbs.

5 Kroeger (2004:193) defines a periphrastic causative, also known as an ‘analytical’ causative, as a construction in which ‘the causative expression ‘cause to X’ is expressed by two separate verbs’.

The other causative forms that Lukas (1953:138) lists—for transitive LVCs (traditionally part of Class 3)—are constructed by combining the preverb morpheme of an LVC with another verb of ‘causation’ to create a causative LVC. The reported use of these causative forms basically matches my observations for causative LVCs, which are described in more detail in §8.2.2.2.

Morphological causatives are attested in the Saharan languages Beria/Zaghawa (Wolfe 2001:65; Jakobi & Crass 2004) and Kanuri (Lukas 1937:101–102; Hutchison 1981:148–152; Cyffer 1998a:42–43; Cyffer 2007:1114–1115), but their productivity seems to be limited.<sup>6</sup>

The currently productive strategy for forming causative clauses (excluding clauses with lexical causatives, which are formed like basic intransitive or transitive clauses) is by the use of periphrastic constructions or serial verb constructions (SVCs). The periphrastic constructions use a system of various verbs of causation, whose distribution depends on whether the verb is simple or requires a light verb construction (LVC), and on whether the causee is singular or plural. Causative SVCs (only with simple verbs) are formed with *tèní* ‘give’. This system of causative formation is summarized in Table 8.2, and is further illustrated by the examples in the following sections.

TABLE 8.2 Summary of causative constructions

Simple verbs		Light Verb Constructions	
Sg. Causee	Pl. Causee	Sg. Causee	Pl. Causee
infinitive + =rò + inflected form of <i>tón</i>	infinitive + =rò + infl. form of <i>múg</i>	preverb + inflected form of <i>tìrí</i>	preverb + inflected form of <i>tèhèrí</i>
Serial verb construction with <i>tèní</i> ‘give’			

#### 8.2.2.1 Causative Constructions with Simple Verbs

Periphrastic causative clauses may be formed by combining the causative verb *tono* ‘cause (sg. obj.)’ or *mugu* ‘cause (pl. obj.)’ with a simple verb in an embedded clause. Like the verbs in complements of the verbs *tìèrí* ‘to refuse’ and *tàlòptí* ‘order, command’, the verbs in the embedded clause of a periphrastic causative construction are in the infinitive form and take the subordinator =rò. The causative verbs function periphrastically with verbs that express the

6 For example, of the Kanuri causative, Hutchison (1981:148) states, ‘Its status as a productive derived form might [...] be referred to as tenuous at best’.

caused event of the causative construction. The verb *tono* is used if the causee is singular, and *mugu* is used if the causee is plural (as demonstrated in (475) and (476)). Causatives constructions may also be formed by combining the verb *tɛní* ‘give’ in an SVC with a simple verb (cf. §8.3).

#### 8.2.2.1.1 *Causatives Constructions with Intransitive Simple Verbs*

Periphrastic causative constructions with simple verbs are illustrated in examples (473) to (476). In these constructions, the embedded verb is intransitive. In each case, the verb of causation appears in an inflected form, with its subject agreement marker indicating the person of the causer, and its object agreement marker indicating the person of the causee. The embedded verb is given in the infinitive form (sometimes called the ‘nominal’ form in Saharan studies; cf. Ortman (2003)) with the subordinator *=rɔ* (cf. §8.2.4). A single construction (infinitive simple verb with the subordinator *=rɔ*) is used to express the embedded verbs from both *S<sub>p</sub>* (examples (473) and (476)) and *S<sub>a</sub>* (examples (474) and (475)) verbs (cf. §5.5), perhaps because the subject agreement markers are irrelevant in the infinitival forms.

- (473)    *tɪrkànírɔ*                      *ɖʒɔdɔnɔ*  
           *tɪrkàní=rɔ*                    *d-j-ton*  
           walk.INF=SUB    1.OBJ-3-cause  
           ‘He made me walk.’
- (474)    *kínnírù*                        *nɔdonɔr*  
           *kínní=ru*                     *n-ton-r*  
           laugh.INF=SUB    2.OBJ-cause-1  
           ‘I made you laugh.’
- (475)    *kàllóòì*                        *dìrí*            *sóm mà(gà)*  
           *kàllí=ɔ=ɪ*                   *dìrí*            *són=ma(=gà)*  
           boy=DET=ERG    sister    3S.POSS=DET(=ACC)  
           *ègírù*                        *dónò/\*múgù*  
           *ègí=ru*                      *Ø-j-ton/\*Ø-j-múg*  
           cry.INF=SUB    3.OBJ-3-cause/\*3.OBJ-3-cause  
           ‘The boy made his sister cry.’
- (476)    *òrkáà*                        *tɪrkànírɔ*                      *múkkùr/\*tòntòr*  
           *òrká-a=a*                   *tɪrkàní=rɔ*                   *Ø-múg-t-r/\*Ø-tón-t-r*  
           goat-P=DET    walk.INF=SUB    3.OBJ-cause-P-1/\*3.OBJ-cause-P-1  
           ‘We made the goats walk.’

### 8.2.2.1.2 *Causatives Constructions with Transitive Simple Verbs*

Periphrastic causative constructions with transitive simple verbs are illustrated in (477) to (480). As with periphrastic causatives with intransitive simple verbs, a verb of causation is used along with the caused event, in a periphrastic construction. As each of the following examples demonstrates, the number of the causee determines which causative verb must be used. The embedded simple verb is expressed in the infinitive form with the subordinator =*rò*, and the causee is expressed with the accusative case enclitic. The object of the embedded verb immediately precedes the embedded verb (as expected from Dazaga's SOV word order). The causee precedes both the embedded verb and its object. Example (480) demonstrates that the causer, if overtly present, occurs before the causee and the embedded verb (again, as expected).

- (477) àrígà            ñàhílà    kinnírù            ònòr/\*mugur  
          àrí=gà        ñàhílà    kinní=rù           Ø-tòn-r/\*Ø-muk-r  
          woman=ACC millet    crush.INF=SUB    3.OBJ-cause-1/\*3.OBJ-cause-1  
          'I caused the woman to crush the millet.'

- (478) ámmágà            ǽǽnnà            kírírò  
          ámmá=gà        ǽǽnnè=a        kírí=rò  
          people=ACC    door=DET       break.INF=SUB  
          mukkur/\*dòntòr  
          Ø-mug-t-r/\*Ø-tòn-t-r  
          3.OBJ-cause-P-1/\*3.OBJ-cause-P-1  
          'We caused the men to break the door.'

- (479) kàllíagà            èzúù            kòrírò            mumum/\*dònom  
          kàllí-a=gà        èzí=ù            kòrí=rò           Ø-mug-m/\*Ø-tòn-m  
          boy-P=ACC    rope=DET    cut.INF=SUB    3.OBJ-cause-2/\*3.OBJ-cause-2  
          'You caused the boys to cut the rope.'

- (480) àǽì            mí            sómmàgà            jégè            tǽjàsírò  
          àǽ=i            mí            sòn=mà=gà            jégè            tǽjàsí=rò  
          man=ERG    son    3S.POSS=DET=ACC    house    sell.INF=SUB  
          ònò/\*mugu  
          Ø-j-tòn/\*Ø-j-muk  
          3.OBJ-3-cause/\*3.OBJ-3-cause  
          'The man caused his son to sell the house.'



When the object of the embedded verb is not a pronoun, it cannot receive accusative case marking, as illustrated in (481). This is the case even if the object of the embedded verb is animate and human, as demonstrated in (482). This is different from the pattern in other types of embedded infinitive clauses (cf. examples (465) and (468)).

- (481) àrìgà                      ñàhílà(\*gà)              kinnírù              donor  
          àrìf=gà              ñàhílà(\*=gà)              kinní=rù              Ø-ton-r  
          woman=ACC      millet(\*=ACC)      crush.INF=SUB      3.OBJ-cause-1  
          ‘I caused the woman to crush the millet.’

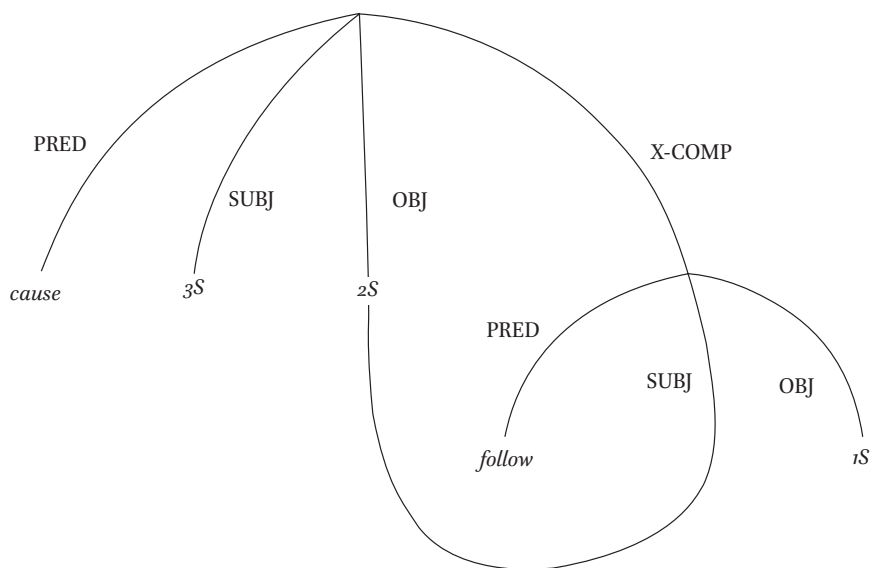
- (482) ntàgà              kállímà(\*gà)              tàórò              nodonor  
          ntà=gà              kállímà(\*=gà)              tàó=rò              n-ton-r  
          2S=ACC      boy=DET(\*=ACC)      hit.INF=SUB      2.OBJ-cause-1  
          ‘I caused you to hit the boy.’

When the object of the embedded verb is pronominal, accusative case marking is optional, as demonstrated in (483). This is somewhat unexpected since accusative pronouns are normally obligatorily marked with the accusative case enclitic (cf. §6.2.2).

- (483) ámmàgà              ntà(gà)              tàórò              mukkur  
          ámmà=gà              ntà(=gà)              tàó=rò              Ø-mug-t-r  
          people=ACC      2S(=ACC)      hit.INF=SUB      3.OBJ-cause-P-1  
          ‘We caused the men to hit you.’

Example (484) (cf. (483)) further demonstrates that double accusative marking is possible in certain periphrastic causative constructions, suggesting that periphrastic causatives are biclausal (as opposed to causative serial verb constructions and causative light verb constructions, neither of which can take double accusative marking). This biclausal analysis is further supported by the use of the morpheme =rò to subordinate the embedded verb and its object (cf. §8.2.4).

- (484) ntàgà              tàṇógà              tìgàsírò              nḡodonò  
          ntà=gà              tàṇó=gà              tìgàsí=rò              n-j-ton  
          2S=ACC      1S=ACC      follow.INF=SUB      2.OBJ-3-cause  
          ‘He caused you to follow me.’

FIGURE 8.4 *Functional structure of example (484).*

The biclausal analysis of periphrastic causatives, such as (484), could be represented informally (and without preserving word order) using a relational structure diagram such as that in Figure 8.4, which graphically shows the embedding of one clause within another, where the object of the matrix clause controls the subject of the embedded clause.

#### 8.2.2.1.3 *Causative SVCs*

Causative constructions with simple verbs can also be formed as SVCs (cf. §8.3) by combining the verb *tɛ́ní* ‘give’ with a simple verb. This use of SVCs is illustrated in (485). A comparison of (485) with (477) shows that the type of causative (periphrastic versus SVC) formed with a given simple verb is not lexically specified by that verb.

- (485)    *ɲàhílà(gà)*      *àrírò*              *jénɛr*              *gínù*  
           *ɲàhílà(=gà)*    *àrír=rò*            *Ø-jén-r*          *Ø-j-kín*  
           millet=ACC    woman=DAT    3.OBJ-give-1    3.OBJ-3-crush  
           ‘I caused the woman to crush the millet.’

Because SVCs are, by definition (cf. §8.3), monoclausal, causative SVCs should be considered monoclausal, unlike periphrastic causatives formed with simple verbs. Case marking also supports this analysis, since accusative case markers

never co-occur in causative SVCs (unlike in periphrastic causatives; cf. (484)). Rather, in a causative SVC, the causee receives dative case (as the recipient of the verb *tèní* ‘give’), and the object of the other verb in the SVC receives accusative case (optionally, if not a pronoun). Causative SVCs using *tèní* ‘give’ should not be confused with similar SVCs used to specify a beneficiary (cf. §8.3). In causative SVCs, the verb *tèní* ‘give’ is the first of the two verbs in the SVC (cf. (485)), whereas, in benefactive SVCs, the verb *tèní* ‘give’ is the second verb, as illustrated in (486).

- (486) ábbà      níròì      kútùb      ʃǒbò      ɖʒén  
          ábbà      nír=ò=ì      kútùb      Ø-j-jǒb      d-j-jén  
          father      1S.POSS=DET=ERG book      3.OBJ-3-buy      1.OBJ-3-give  
          ‘My father bought a book for me.’

#### 8.2.2.1.4 *Ingestive Causatives*

The ingestive verbs *tòó* ‘eat’ and *tèí* ‘drink’ are both simple transitive verbs in Dazaga. However, ingestive verbs differ from other simple verbs in that causatives formed with these verbs must be SVCs and cannot be periphrastic constructions. Causative SVCs for ingestive verbs are illustrated in (487) to (490).

- (487) ìí      jénìr      ʃédù  
          ìí      Ø-jén-r      Ø-j-jé-t  
          water      3.OBJ-give-1      3.OBJ-3-drink-P  
          ‘I made them drink water.’
- (488) dèéǵà      níràrò      ìí      jénìr      ʃédù  
          dèéǵà-a      nír-à=rò      ìí      Ø-jén-r      Ø-j-jé-t  
          brother-P      1S.POSS-P=DAT water      3.OBJ-give-1      3.OBJ-3-drink-P  
          ‘I made my brother drink water.’
- (489) ámíàì      àmíárò      bródì      ʃéǵtò      wódò  
          ámí-á=ì      àmí-á=rò      bródì      Ø-j-jén-t      Ø-j-bó-t  
          boy-P=ERG      boy-P=DAT bread      3.OBJ-3-give-P      3.OBJ-3-eat-P  
          ‘The men made the boys eat bread.’<sup>7</sup>

7 The occurrence of the ergative case enclitic on *ámí-á* ‘boys’ is unique in these examples, but so is the occurrence of an overt subject, namely, *ámí-á* ‘boys’. The ergative case marking may also serve to identify *ámí-á* ‘boys’ as subject of the matrix clause, since it is separated from its verb by another clause.

- (490) bródi níniṛ bóm  
 bródi n-jén-r Ø-bó-m  
 bread 2.OBJ-give-1 3.OBJ-eat-2  
 'I made you eat bread.'

With these ingestive verbs, unlike with other simple verbs, it is ungrammatical to form a periphrastic causative construction. This is demonstrated in (491).

- (491) \* nítagà bródi tòórò nodonor  
 níta=gà bródi tòó=rò n-ton-r  
 2S=ACC bread eat.INF=SUB 2.OBJ-cause-1  
 ('I made you eat bread.')

### 8.2.2.2 Causative Light Verb Constructions

Non-causative forms of LVCs are formed by joining a preverb to an inflected form of the simple verb *n* 'to say' (according to the usual identification). When used in an LVC construction, the verb *n* is semantically 'light', and serves a merely grammatical role (that is, it does not contribute to the lexical content of the LVC, which is provided solely by the preverb). In the same way, causative LVCs are formed with one of two verbs that are semantically 'light' when used in LVCs. These verbs are *tírí* 'pull out (sg. obj.)' and *ǰérí* or *tèhèrí* 'pull out (pl. obj.)'.

#### 8.2.2.2.1 Causative LVCs with Singular Causees

When a causative LVC has a singular causee (corresponding to the subject of the parallel non-causative form), the preverb attaches to a following (inflected) form of the causative light verb *tírí* 'pull out (sg. obj.)'.

This construction is illustrated in (492) for a transitive LVC with a singular causee (the object). In this construction, the causer is encoded as the subject of the causative LVC, the causee as the object, and the object of the caused event is not indexed on the causative LVC at all (because the LVC only has two argument agreement affixes), but appears solely as a NP constituent preceding the causative LVC.

- (492) kútùbù fahamnɪdɪr  
 kútùb=ù faham-n-t-r  
 book=DET comprehension-2.OBJ-CAUS.LV-1  
 'I caused you (sg.) to understand the book.'

Examples of causative LVCs based on syntactically intransitive verbs are given in (493) and (494). In these constructions, similar to the transitive causative LVC in (492), the causer is encoded as the subject of the causative LVC and the causee as the object of the causative LVC. Since the caused event is intransitive, there is no object of the caused event. The subject of the caused event can appear as a free NP constituent as well as being indexed on the verb.

- (493) éré                      nírò                      kàràtír  
          éré                      nír=ò                      kara-Ø-t-r  
          younger.brother      1S.POSS=DET      study-3.OBJ-CAUS.LV-1  
          'I caused my younger brother to learn' / 'I taught my younger brother.'

- (494) fòró      fèrúù              òrò      fagítír  
          fòró      fèrí=ù              òrò      fagí-Ø-t-r  
          cow      river=DET      into      descend-3.OBJ-CAUS.LV-1  
          'I made the cow go down into the river.'

Unlike the periphrastic causatives formed from simple verbs, causative LVCs are best analyzed as monoclausal, similar to prototypical morphological causatives. Case marking patterns support this analysis. The causee (as the primary object) can receive accusative case whether it precedes or follows the object of the preverb (i.e. the caused event). This is illustrated in (495) and (496).

- (495) kàllòògà              kútùbù              fàhám̀tír  
          kàllí=ò=gà              kútùb=ù              fàhám-Ø-t-r  
          boy=DET=ACC      book=DET      comprehension-3.OBJ-CAUS.LV-1  
          'I caused the boy to understand the book.'

- (496) kútùbù              kàllòògà              fàhám̀tír  
          kútùb=ù              kàllí=ò=gà              fàhám-Ø-t-r  
          book=DET      boy=DET=ACC      comprehension-3.OBJ-CAUS.LV-1  
          'I caused the boy to understand the book.'

Examples (497) and (498) demonstrate that accusative case cannot occur on both the causee and the object of the preverb.

- (497) \* kàllòògà              kútùbùgà              fàhám̀tír  
          kàllí=ò=gà              kútùb=ù=gà              fàhám-Ø-t-r  
          boy=DET=ACC      book=DET=ACC      comprehension-3.OBJ-CAUS.LV-1  
          ('I caused the boy to understand the book.')

- (498) \* kútùbùgà kàllóògà fàhám-tìr  
 kútùb=ù=gà kàllí=ò=gà fàhám-Ø-t-r  
 book=DET=ACC boy=DET=ACC comprehension-3.OBJ-CAUS.LV-1  
 ('I caused the boy to understand the book.')

If only the object of the preverb (caused event) receives accusative case, it is still ungrammatical, as demonstrated in (499).

- (499) \* kàllóò kútùbùgà fàhám-tìr  
 kàllí=ò kútùb=ù=gà fàhám-Ø-t-r  
 boy=DET book=DET=ACC comprehension-3.OBJ-CAUS.LV-1  
 ('I caused the boy to understand the book.')

#### 8.2.2.2.2 Causative LVCs with Plural Causees

When a causative LVC has a plural causee (corresponding to the subject of the parallel non-causative form), the preverb attaches to a following (inflected) form of the causative light verb *tèhèrí* 'pull out (pl. obj)'.

This construction is illustrated in examples (500) and (501). As in causative transitive LVCs with singular causees, the causer is encoded as the subject of the causative transitive LVC, the causee as the object, and the object of the caused event is not indexed on the causative LVC (because it is the secondary object), but appears solely as a NP constituent preceding the causative LVC (in these cases, *kútùbù* 'the book' and *ègífá sóntá* 'their loans').

- (500) kútùbù fahamnìhettìr  
 kútùb=ù faham-n-hèd-t-r  
 book=DET comprehension-2.OBJ-CAUS.LV-P-1  
 'I caused you (pl.) to understand the book.'

- (501) ègífá sóntá biahèdìr  
 ègífá-a sóntó-a bia-Ø-hèd-r  
 loan-P 3P.POSS-P pay-3.OBJ-CAUS.LV-1  
 'I made them pay their loans.'

#### 8.2.2.2.3 Transitive LVCs and Grammatical Relations

Cross-linguistically, there is a strong correlation between the grammatical relation of the arguments in a ditransitive clause and the grammatical relation of the causee in a (morphological) transitive causative (Baker 1988). Thus, in a given language, 'if the recipient [of a ditransitive verb] is expressed as a primary object, [...] then there is a strong tendency for a transitive causee also

to be marked as a primary object' (Kroeger 2004:194–201). Conversely, if the recipient of a ditransitive verb is marked as a secondary object or an oblique argument, then the transitive causee will tend to be marked as a secondary object or an oblique argument.

This generalization holds true in Dazaga for transitive causative LVCs. Excluding overriding constraints when a theme is first or second person, the recipient in a ditransitive clause is marked (by object agreement) as the primary object (cf. §6.3.3). It is not surprising, then, that the causee of a transitive causative LVC is expressed as the primary object, as demonstrated in (502), where the object agreement marker *n-* '2.OBJ' agrees with the second person causee and not with the third person object of the caused event (expressed here as an unmarked secondary object).

- (502) kútùb=ù      faham-**n**i-di-r  
           book=DET      comprehension-2.OBJ-CAUS.LV-1  
           'I caused you to understand the book.'

Case marking further confirms that the causee is the primary object of the causative transitive LVC. In (503), both the causee and the object of the caused event are third person, and the third person object agreement marker ( $\emptyset$ -) does not disambiguate which is the primary object of the causative transitive LVC. However, the accusative case enclitic =*gà* indicates that the causee, *kàllìàgà* 'boys', is the primary object.

- (503) kàllìàgà      kútùbàà      fahamhèdir  
           kàllí-à=**g**à      kútùb-à=à      faham- $\emptyset$ -hèd-r  
           boy-P-ACC      book-P=DET      comprehension-3.OBJ-CAUS.LV-1  
           'I caused the boys to understand the books.'

Although the accusative case marks the causee, which is the primary object, this case marking pattern is different from the case marking of the primary objects of ditransitive verbs. The primary objects of ditransitives, as recipients, receive dative case (cf. §6.3.3), whereas the primary objects of transitive causative LVCs, as non-recipients, receive accusative case.

### 8.2.3 *Relative Clauses*<sup>8</sup>

In examining relative clauses in any language, there are particular features or aspects that need to be considered. Payne (1997:326) helpfully lists three major parameters along which relative clauses differ, namely, 1) the position of the head noun to the relative clause, 2) the strategy (or strategies, where more than one are observed) of relativization, and 3) which grammatical relations can be relativized. I briefly comment on each of these in more detail below.

I use the term ‘relative clause’ in this section to refer to the modifying clause itself, excluding the ‘head’ noun. Unless otherwise stated, I use ‘relative clause’ to refer only to restrictive relative clauses (excluding non-restrictive relative clauses and correlatives). I use NP<sub>mat</sub> to refer to the noun phrase in the matrix clause which is modified by the relative clause. The coreferential noun phrase in the relative clause (whether manifested as a resumptive pronoun or a gap) is referred to as NP<sub>rel</sub>. For the sake of space, I assume the reader is somewhat familiar with the typology of relative clauses (Andrews 2007b; Keenan 1985) and with the Accessibility Hierarchy (Keenan & Comrie 1977; cf. Dik 1997:399–404).<sup>9</sup>

In the published works on Dazaga, relative clauses have received very little attention. Lukas (1953) gives slightly less than one page to relative clauses; LeCoeur & LeCoeur (1956) give barely half a page to the matter. Much of this section is reworked from Walters (2014) which also includes a comparative study of Kanuri relative clauses.

#### 8.2.3.1 The Structure of Relative Clauses

In this section I describe the ordering of head noun and relative clause, the ordering of other noun modifiers and relative clause, and the structural markers of a relative clause in Dazaga.

Dazaga does not use free relative clauses or headless relative clauses. To express an English free relative such as *what she said*, Dazaga requires that a generic head noun such as *íní* ‘thing’ be employed, as in example (504). If the interrogative word *íníní* ‘what?’ is used to try to construct a free relative clause,

8 See Peranteau et al. (1972) for a valuable collection of studies on relative clauses in over 20 languages.

9 In the literature, the term ‘headless relative clause’ is often used interchangeably with ‘free relative clause’ (cf. Payne 1997:326). Thus, for example, Riemsdijk & Williams (1986:108) use the terms interchangeably and simply define a free/headless relative clause as one that lacks a head (1986:160). Similarly, Givón (2001b:205) uses ‘headless’ to refer to relative clauses that Kroeger (2005:239) calls ‘free’ relative constructions. For a useful discussion of the differences between ‘free’ relatives and ‘headless’ relatives, see Kroeger (2005:238–240).



the result is ungrammatical, as demonstrated in example (505). Thus, relative clauses are externally headed.

- (504)    *ìní*        *fárò*                      *dàgìní*  
           *ìní*        Ø-j-fár=ò                      Ø-j-dák-ní  
           thing    3.OBJ-3-say=DET    3.OBJ-3-like-NEG  
           ‘He didn’t like what she said.’ [lit. ‘He didn’t like the thing she said.’]
- (505)    \*    *ínní*        *fárò*                      *dààzìní*  
               *ínní*        Ø-j-fár=ò                      d-báz-ní  
               what    3S.said=DET    1S.heard-NEG  
               (‘I didn’t hear what she said.’)

Though many languages with SOV word order typology (and only SOV languages) allow prenominal relative clauses (Comrie 1981:87; Andrews 2007b:209; Keenan 1985:144), example (504) demonstrates that Dazaga does not exhibit this pattern; rather, relative clauses are strictly postnominal. This is further illustrated in examples (506) and (507). In these examples, the head noun is in bold type, and the following relative clause is enclosed with square brackets.

- (506)    **àǫ**        [*gʷónóò*        *fǿb*]ò                      *dèéǹì*        *níròrò*  
           **àǫ**        *gʷóní=ò*        Ø-j-jób=ò                      *dèéǹì*        *nír=ò=rò*  
           man    camel=DET    3.OBJ-3-buy=DET    brother    1S.POSS=DET=DAT  
           **núkì**        *fǿn*  
           **núk-j**        Ø-j-jén  
           speak-3    3.OBJ-3-give  
           ‘The man [who bought the camel] spoke to my brother.’
- (507)    **àǫ**        [*íí*        *ànábo*        *kóbbó*        *fǿì*]ǹà                      *èskí*  
           **àǫ**        *íí*        *ànábo=ò*        *kóbbó*        Ø-j-jé=ǹà                      *èskí*  
           man    water    grape=GEN    old        3.OBJ-3-drink=REL    new  
           *dàgìní*  
           Ø-j-dák-ní  
           3.OBJ-3-want-NEG  
           ‘The man [who has drunk old wine] doesn’t want new.’

Other modifying elements, such as determiners, possessives, other ‘genitives’, or adjectives follow their head nouns (cf. §4.2). When such other modifying elements co-occur with relative clauses as modifiers of the same head noun, the relative clause follows the other modifiers (except for determiners),

whether demonstratives, possessives/genitives, or adjectives. These are illustrated, respectively, in examples (508) to (510).

- (508) mèrí            áì            [nìntà̀rò      nófáttìr]ɲà  
          mèrí            áì            nìntá=rò      n-fár-t-r=ɲà  
          message      this      2P=DAT      2.OBJ-speak-P-1=REL  
          ‘this message [that he spoke to you]’

- (509) mí            sún            [dág]ò  
          mí            sún            Ø-j-dág=ò  
          son            3S.POSS      3.OBJ-3-love=DET  
          ‘his son [whom he loved]’

- (510) áskí            jéskò            [táán]ò  
          áskí            jéskò            Ø-táán=ò  
          horse      black            3-fall=DET  
          ‘the black horse [which fell down]’

Lukas (1953:179) mentions three ways in which a relative clause in Dazaga can be marked: 1) when the head noun is a singular indefinite noun, the relative clause is simply joined to its head noun (what Lukas calls the *Beziehungswort* ‘antecedent’) without being specially marked in any way; 2) for plural head nouns, a ‘relative’ form of the verb is used; and 3) if the head noun is singular and definite, then the relativizer =ɲa is used.<sup>10</sup>

In reality, it seems that his ‘relative’ forms of the verb (1953:92–4) are nothing more than a verb with the determiner cliticized, resulting in a vowel cliticized to the verb, as in examples (511) to (513), below.

- (511) ámmá            [kʷòí      áìrò            bíní            bèkkinná]á  
          ámmá            kʷòí      áì=rò            bíní            Ø-bég-t-ní-ré]=à  
          people      place      this=DAT      today      3-be.not-P-NEG-ADJZ=DET

10 Lukas (1953:179) refers to this as a *Relativ-pronomen*, or ‘relative pronoun’. However, since the form =ɲa does not change, regardless of the person, number, or gender of the head noun, this is better analyzed as a relativizer. Cf. Kroeger (2004:177–178) for a helpful discussion of the differences between relativizers and relative pronouns.

mòrárò ná fáttò jí  
 mòrá=rò ná Ø-fár-t-Ø jí  
 3P=DAT also 3.OBJ-tell.1MV-P-2 3.say  
 ‘... he said “Tell it to the people [who are not here today].”’

- (512) òrká [fɿŋàfó nírò wód]à fɿáttò  
 òrká-a fɿŋàfó nír=ò Ø-j-bó-t=à j-jád-t  
 goat-P rice 1S.POSS=DET 3.OBJ-3-eat-P=DET 3-die-P  
 ‘The goats [who ate my rice] died.’

- (513) ámmá [gʷóná fɿɔppòg]à dèéŋà nírà  
 ámmá gʷóní-a Ø-j-jób-t-gì=à dèéŋì-a nír-a  
 people camel-P 3.OBJ-3-buy-P-IPFV=DET brother-P 1S.POSS-P  
 ‘The men [who are buying the camels] are my brothers.’

I have not encountered any evidence for relative clauses that are unmarked, Lukas’ (1953:179) first option.

Despite Lukas’ claims, it is not easy to categorize the distribution of the morphemes that can occur at the end of relative clauses. However, there are two ways of constructing relative clauses in Dazaga that are distinct, though structurally similar.

First, and most commonly, relative clauses are ended by the determiner =*ma* or one of its allomorphs (cf. §4.1.5).<sup>11</sup> Many simple noun phrases in Dazaga end with =*ma*, but the placement of =*ma* is distinctive in a relative clause, where the NP-final determiner immediately follows, and is cliticized to, a verb. Because the determiner follows the verb, the form =*ma* only occurs after second person forms ending in /m/, which are much more rare than the other verb forms. The occurrence of the determiner =*ma* (or one of its allomorphs) at the end of a relative clause is illustrated in examples (514) to (516). In these examples, the relative clause is enclosed in square brackets, and the determiner is in bold type.

- (514) àú [àgàsó jóbìr jénìr]ò kî núnkàr  
 àú àgàsó Ø-jób-r Ø-jén-r=ò kî núk-n-t-r  
 man sword 3.OBJ-buy-1 3.OBJ-give-1=DET with speak-LV-P-1  
 ‘We spoke with the man [whose sword I bought].’

11 Keenan (1985:146) notes that, of the possible orders of head noun, modifying clause, and determiner, the order in which the determiner is separated from the head noun by the modifying clause, as in Dazaga, is less common than the other orders.

- (515) àó [gʷòṇóò fʃòbògà]à làó nír  
 àó gʷòní=ò Ø-j-jób-gì=à làó nír  
 man camel=DET 3.OBJ-3-buy-IPFV=DET friend 1S.POSS  
 'The man [who will buy the camel] is my friend.'
- (516) ìní [fàròm]mà ginná àiré kégérò tàṅórò  
 ìní Ø-fár-m=mà ginná ài-ré kégé=rò tàṅó=rò  
 thing 3.OBJ-say-2=DET all this-ADJZ like=DAT 1S=DAT  
 tìgìsée  
 Ø-tìgìsò-é  
 3-happen-OPT  
 'May it happen to me like every thing [you said].'

Because relative clauses are postnominal, the extent of the relative clause is fairly clearly demarcated, with the head noun (immediately, except for other elements within the same noun phrase) preceding the relative clause, and the determiner appearing at the very end of the relative clause, following the clause-final verb. In some cases, as in (515), above, another definite noun phrase is embedded within the noun phrase that contains the relative clause, with the result that there are multiple determiners. However, even in (515), the second determiner clearly marks the end of the relative clause because it follows the relative clause verb, rather than some other non-verbal element.

The other way that a relative clause can be ended is by the relativizer =*ḡà* cliticized to the end of the relative clause, in much the same way that the determiner can appear at the end of a relative clause.<sup>12</sup> This is illustrated in examples (517) to (519), below.

- (517) àó [í ànábò kóbbó fʃéi]ḡà èskí  
 àó í ànáb=ò kóbbó Ø-j-jé=ḡà èskí  
 man water grape=GEN old 3.OBJ-3-drink=REL new  
 dàḡìní  
 Ø-j-dák-ní  
 3.OBJ-3-want-NEG  
 'The man [who has drunk old wine] doesn't want new.'

12 Cf. Tucker & Bryan (1966:183): 'The Relative in TUBU is expressed by *ḡa*, *ḡaa* at the end of the Noun Group'.

- (518) m̀erí      àì      [ǹǹtárò      ǹfáṭṭr]̀ɲà  
 m̀erí      àì      ǹǹtá=rò      n-fár-t-r=ɲà  
 message    this    2P=DAT    2.OBJ-speak-P-1=REL  
 ‘this message [that we spoke to you]’

With some verbs, whose stem ends in a velar stop, a morphophonemic process takes place whereby the final velar stop of the underlying verb root fully assimilates to the initial nasal of the relativizer, then degeminates (or simply deletes), so that the result is simply  $=\eta\grave{a}$ . For example, the form  $\tilde{f}\tilde{f}\tilde{i}=\eta\grave{a}$  ‘which was’ in (519) below, is a combination of the root  $\tilde{f}\tilde{f}\tilde{i}g$  ‘to be’ plus the relativizer  $=\eta\grave{a}$  (i.e.  $\tilde{f}\tilde{f}\tilde{i}g$ - plus  $=\eta\grave{a} \rightarrow \tilde{f}\tilde{f}\tilde{i}=\eta\grave{a}$ ).

- (519)    kʷòí      [kʷî        f̥jì]ŋà                  sáimàrò                  kùlî  
            kʷòí      kʷî        Ø-f̥jì(g)=ŋà        sấî=mà=rò                  kùlî-Ø-j  
            place   between   3-be=REL       sky=DET=DAT       call-3.OBJ-3  
            ‘The place [which was between], he called sky.’

Based on data from Kevin Walters (p.c.), it appears that the distribution of the determiner versus the relativizer at the end of relative clauses may be a dialectal difference between clans, rather than anything to do with the definiteness of the head noun. Thus, the same relative clause can be expressed with either morpheme, depending on the speaker, as illustrated in (520) and (521).

- (520) àiré                      fàì      támìrɲà                      /      támìr=ò  
           ài-ré                fàì      Ø-tám-r=ɲà                      Ø-tám-r=ò  
           this-ADJZ      tea      3.OBJ-drink-1=REL                      3.OBJ-drink-1=DET  
           ‘This here is the tea that I drank.’
- (521) àiré                      fàì      dāmòɲà                      /      dāmò  
           ài-ré                fàì      Ø-j-tám=ɲà                      Ø-j-tám=ò  
           this-ADJZ      tea      3.OBJ-3-drink=REL                      3.OBJ-3-drink=DET  
           ‘This here is the tea that he drank.’

8.2.3.2 Relativization Strategies and the Accessibility Hierarchy in Dazaga  
NP<sub>rel</sub> can serve any function in the relative clause from subject to possessor. This is illustrated throughout the following examples as I discuss the relativization strategies used for the various functions of NP<sub>rel</sub>. Even though Lukas (1953:179) refers to *ɲa* as a *Relativ-pronomen*, LeCoeur & LeCoeur (1956:71) are correct in pointing out that ‘there is no relative pronoun in Dazaga’. As

demonstrated below, the gap strategy and resumptive pronouns are utilized for relativization of all grammatical relations.

Given the ability to relativize at all, we expect, based on Keenan & Comrie (1977), the ability to relativize the subject grammatical relation. Relativization of the subject grammatical relation is demonstrated in (522) and (523). The gap strategy may be used for relativized subjects, though there is subject agreement marked on the relative clause verb to agree with the relativized subject (however, agreement marking is not generally considered to constitute ‘pronoun retention’; cf. Keenan & Comrie (1977:92)).

- (522) èkké [ \_\_\_\_\_ jégàà kòŋŋ fɛ́ɛ]ɲà  
 èkké jégè=à kòŋŋ Ø-fɛ́ɛ(g)=ɲà  
 tree house=DET in.front.of 3-be=REL  
 fɛ́álfɛ́  
 fɛ́álf-Ø-j  
 cut.down-3.OBJ-3  
 ‘He cut down the tree [that was in front of the house].’

- (523) mèrí [ \_\_\_\_\_ dèlìl dé]ɲà gálì  
 mèrí dèlìl Ø-j-téi=ɲà gálì  
 speech evidence 3.OBJ-3-have=REL good  
 ‘Speech [that has evidence] (is) good.’

Typologically, the use of resumptive pronouns as a strategy for relativizing the subject relation is rare in Africa. It is reported in only four languages (out of fifty-four) in Kuteva & Comrie’s (2005) typological study of subject relativization in African languages.<sup>13</sup> Dazaga should be added to this number, as resumptive pronouns may be used for relativized subjects, as illustrated in (524), where *mèré* ‘3S’ refers anaphorically to *kírí* ‘dog’.

- (524) kírí [mèré mí nírò wó]ò jìdír  
 kírí mèré mí nír=ò Ø-j-bú=ò Ø-jíd-r  
 dog 3S son 1S.POSS=DET 3.OBJ-3-bite=DET 3.OBJ-kill-1  
 ‘I killed the dog [which bit my son].’

13 The four languages are Babungo [Babango], Koozime [Koonzime], Ngemba, and Yoruba. Interestingly, these four languages are all Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid languages, except for Yoruba, which is Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Defoid. It is significant, then, that the possibility of pronoun retention as a subject relativization strategy should also be attested in an unrelated Nilo-Saharan language.



- (528) \* àǵ [àǵàsú m̀èrérò jéǹr]̀òì  
 àǵ àǵàsú m̀èré=rò Ø-jén-r=ò=i  
 man sword 3S=DAT 3.OBJ-give-1=DET=ERG  
 d̀éǵ̀ì nírògà wáwò  
 d̀éǵ̀ì nír=ò=gà Ø-j-báb  
 brother 1S.POSS=DET=ACC 3.OBJ-3-hit  
 ('The man [to whom I gave the sword] hit my brother.')

Secondary objects may be relativized using the gap strategy to represent NP<sub>rel</sub>, as illustrated in example (529) and (530).

- (529) m̀erí àì [ \_\_\_\_ ǹìntárò nófát̀t̀r]̀̀à  
 m̀erí àì ǹìntá=rò n-fár-t-r=̀̀à  
 message this 2P=DAT 2.OBJ-speak-P-1=REL  
 m̀òrá̀rò ná fáttò jí  
 m̀òrá=rò ná Ø-fár-t-Ø jí  
 3P=DAT also 3.OBJ-tell.IMV-2 3.say  
 'This message [that he spoke to you], he said "Tell it to them also."'
- (530) wú̀rèì kútùbù [ábbà níròì \_\_\_\_]  
 wú̀rè=i kútùb=ù ábbà nír=ò=i  
 thief=ERG book=DET father 1S.POSS=ERG  
 d̀ǵém]mà wúì  
 d-j-jén=mà wú-Ø-j  
 1.OBJ-3-give=DET steal-3.OBJ-3  
 'A thief stole the book [which my father gave to me].'

In addition to the gap strategy, resumptive pronouns are possible as a relativization strategy for secondary objects, as illustrate in (531). As with primary object resumptive pronouns, secondary object resumptive pronouns must be fronted to the beginning of the relative clause. Left *in situ*, they are ungrammatical, as demonstrated in (532).

- (531) wú̀rèì kútùbù [m̀èré ábbà níròì]  
 wú̀rè=i kútùb=ù m̀èré ábbà nír=ò=i  
 thief=ERG book=DET 3S father 1S.POSS=ERG  
 d̀ǵém]mà wúì  
 d-j-jén=mà wú-Ø-j  
 1.OBJ-3-give=DET steal-3.OBJ-3  
 'A thief stole the book [which my father gave to me].'



- (532) \* wúrèì kútùbù [ábbà níròì mèré  
 wúrè=ì kútùb=ù ábbà nír=ò=ì mèré  
 thief=ERG book=DET father 1S.POSS=ERG 3S  
 d̥ʒém]mà wùì  
 d-j-jén=mà wú-Ø-j  
 1.OBJ-3-give=DET steal-3.OBJ-3  
 ('A thief stole the book [which my father gave to me].')

Oblique arguments can also be relativized. The gap strategy may still be used at this relatively low level on the Accessibility Hierarchy. This is illustrated in (533) for locative obliques, in (534) for instrumental obliques, and in (535) for comitative obliques.

- (533) níí [ \_\_\_\_\_ d̥rɔ́ bizzí bènn]á  
 níí d̥rɔ́ bizzí Ø-bé(g)-ní-ré=à  
 village in poverty 3-be.not-NEG-ADJZ=DET  
 d̥érò  
 d-tér  
 1-go  
 'I went to a village [in which there was no poverty].'

- (534) d̥ʒàná [ \_\_\_\_\_ òrkáà jìdír]ò kír  
 d̥ʒàná òrkó=à Ø-jíd-r=ò Ø-k-r  
 knife goat=DET 3.OBJ-kill-1=DET 3.OBJ-break-1  
 'I broke the knife [with which I killed the goat].'

- (535) àú [ \_\_\_\_\_ kî kàsógò d̥ér]ò d̥ééɲì nírò  
 àú kî kàsógò d-tér=ò d̥ééɲì nír=ò  
 man with market 1-go=DET brother 1S.POSS=DET  
 'The man [with whom I went to the market] (is) my brother.'

Interestingly, in examples (533) and (535), where the NP<sub>rel</sub> is gapped, the postpositions are retained (i.e. stranded) even though no resumptive pronoun is supplied to complete the postpositional phrases. This differs with the pattern in example (534), where, as we would expect of an enclitic case marker, the dative marker =rù is deleted along with the gapped oblique NP. In Walters (2014), I attributed this difference to a possible difference in grammatical relations between the two relativized constituents (e.g. oblique instrumental versus adjunct locative). However, it is analytically more plausible to attribute this disparity to the difference between a postposition, like dáá 'on', and an

enclitic case marker (cf. §6.1.1). Thus, it is the syntactic category (postposition versus case marker), not the grammatical relation (oblique versus adjunct), that is the relevant distinction underlying the asymmetrical patterns of gapping noted in (533) to (535).

The resumptive pronoun strategy is also allowed for relativized obliques, as illustrated in examples (536) to (538).

- (536) 

níí	[mèré	dàró	bizzí	bènn]á		dérò
níí	mèré	dàró	bizzí	Ø-bé(g)-ní-ré=à		d-tér
village	3S	in	poverty	3-be.not-NEG-ADJZ=DET		1-go

 'I went to a village [in which there was no poverty].'

- (537) 

ḍḍàná	[mèré	òrkáà	jídír]ò		kír
ḍḍàná	mèré=rò	òrkó=à	Ø-jíd-r=ò		Ø-k-r
knife	3S=DAT	goat=DET	3.OBJ-kill-1=DET		3.OBJ-break-1

 'I broke the knife [with which I killed the goat].'

- (538) 

àú	[mèré	kîí	kàsógò	dér]ò	dèéṅì	nírò
àú	mèré	kîí	kàsógò	d-tér=ò	dèéṅì	nír=ò
man	3S	with	market	1-go=DET	brother	1S.POSS=DET

 'The man [with whom I went to the market] (is) my brother.'

Possessors may be relativized, as illustrated in examples (539) and (540). Even at this low end of the Accessibility Hierarchy, there is evidence of alternate strategies for marking NP<sub>rel</sub>. Thus, in example (539), the NP<sub>rel</sub> is gapped, but, in example (540), the resumptive possessive pronoun *sómmà* 'his' is used.

- (539) 

àú	[àgàsó	_____	jóbìr	jénìr]ò	kîí
àú	àgàsó		Ø-jób-r	Ø-jén-r=ò	kîí
man	sword		3.OBJ-buy-1	3.OBJ-give-1=DET	with

 núnkìr  
 núk-n-t-r  
 speak-LV-P-1  
 'We spoke with the man [whose sword I bought].'

- (540) 

àú	[àgàsó	sómmà	jóbìr	jénìr]ò	
àú	àgàsó	són=mà	Ø-jób-r	Ø-jén-r=ò	
man	sword	3S.POSS=DET	3.OBJ-buy-1	3.OBJ-give-1=DET	

kîi núŋkîr  
 kîi núk-n-t-r  
 with speak-LV-P-1  
 'We spoke with the man [whose sword I bought].'

Adjuncts may also be relativized, like other constituents, with both the gap strategy and with resumptive pronouns. This is demonstrated, in (541) to (544).

- (541) kólò [ \_\_\_\_\_ dáá jégè níró tómr]ò  
 kólò dáá jégè níró=ò Ø-tóm-r=ò  
 field on house 1S.POSS=DET 3.OBJ-build-1=DET  
 jóbîr  
 Ø-jób-r  
 3.OBJ-buy-1  
 'I bought the land [on which I built my house].'

- (542) káágó té [ \_\_\_\_\_ ðíró dáódà èrîfî gís]ò ðíró  
 káágó té ðíró dáódà èrîfî Ø-j-kís]ò ðíró  
 week that in (name) trip 3.OBJ-3-do=DET in  
 ábbà níró násò  
 ábbà níró=ò Ø-nás  
 father 1S.POSS=DET 3-die  
 'My father died the week in which David left for a trip.'

- (543) kólò [mèré dáá jégè níró tómr]ò  
 kólò mèré dáá jégè níró=ò Ø-tóm-r=ò  
 field 3s on house 1S.POSS=DET 3.OBJ-build-1=DET  
 jóbîr  
 Ø-jób-r  
 3.obj-buy-1  
 'I bought the land [on which I built my house].'

- (544) káágó té [mèré ðíró dáódà èrîfî gís]ò  
 káágó té mèré ðíró dáódà èrîfî Ø-j-kís]ò  
 week that 3s in (name) trip 3.OBJ-3-do=DET  
 ðíró ábbà níró násò  
 ðíró ábbà níró=ò Ø-nás  
 in father 1S.POSS=DET 3-die  
 'My father died the week in which David left for a trip.'

We can summarize the data and analyses of §8.2.3.2 as follows, in Table 8.3, below.

TABLE 8.3    *Summary of relativization strategies*

	Subj	Obj	Obj <sub>2</sub>	Obl	Poss	Adjunct
Gap	✓	✓	✓	✓	✓	✓
Resumptive	✓	✓	✓	✓	✓	✓

Given the equal distribution of the gap and resumptive pronoun relativization strategies along the Accessibility Hierarchy, a few comments are warranted.

First, this ‘equal’ distribution of relativization strategies, in terms of which grammatical relations they can relativize (I have not quantified each strategy’s frequency), does not contradict Keenan & Comrie’s (1977:68) claim that, ‘A language must have a primary [relative clause]-forming strategy’. Whether a strategy is ‘primary’ or not is not based on its frequency of usage or markedness for relativizing a grammatical relation. Rather, by ‘primary’ Keenan & Comrie only mean that the strategy can be used to relativize the subject grammatical relation (1977:68). In this sense, Dazaga has two ‘primary’ relativization strategies.

Second, Keenan & Comrie (1977:92) suggest that ‘pronoun retention will be used in proportion to the difficulty of the position being relativized’, with a tendency to use the gap strategy toward the high (‘subject’) end of the Accessibility Hierarchy, and pronoun retention (resumptive pronouns) toward the low (‘genitive’) end of the Accessibility Hierarchy. Given their predictions, the equal use in Dazaga of both the gap strategy and resumptive pronouns across the whole Accessibility Hierarchy is somewhat typologically unexpected.

8.2.3.3    Non-Restrictive Relative Clauses

Non-restrictive relative clauses are also possible, and they are formed in the same way that restrictive relative clauses are formed. This is exemplified in (545).

- (545) àí [mèré kîi fí]nàrò fén ní  
 àí mèré kîi Ø-fí(g)=nà=rò Ø-j-jén ní  
 husband 3S with 3-be=REL=DAT 3.OBJ-3-give and  
 mèré ná wói  
 mèré ná Ø-j-bó  
 3s also 3.OBJ-3-eat  
 ‘She gave it to (her) husband [who was with her], and he also ate.’

As with restrictive relative clauses, this non-restrictive relative clause is externally headed, postnominal, and (like some restrictive relative clauses) is signaled by the presence of the relativizer =*na*. These similarities between restrictive and non-restrictive relative clauses are not surprising, as this is a common pattern in the languages of the world (Keenan 1985:169; Comrie 1981:132; cf. Andrews 2007b:207; Kroeger 2004:175).

#### 8.2.3.4 Aspect of Relative Clause Verbs

As the many examples above illustrate, SOV word order is maintained in relative clauses. Unlike in Kanuri (cf. Hutchison 1981:217–218), there are no aspectual restrictions on the verbs in relative clauses; all three aspects (cf. §5.6) are attested, as illustrated in examples (546) to (548). Thus, in (546), the perfective form *fíbbò* is used for ‘bought’, in (547), the progressive form *fíbbì* is used for ‘is buying’, and in (548), the imperfective form *fíbbògì* is used for ‘will buy’.

- (546) àú [gʷónóò fíbb]ò dèénì níròrò  
 àú gʷóní=ò Ø-j-jób=ò dèénì nír=ò=rò  
 man camel=DET 3.OBJ-3-buy=DET brother 1S.POSS=DET=DAT  
 núkì fén  
 núk-j Ø-j-jén  
 speak-3 3.OBJ-3-give  
 ‘The man [who bought the camel] spoke to my brother.’

- (547) àú [gʷónóò fíbbì] fí=nà dèénì  
 àú gʷóní=ò Ø-j-jób-ì Ø-fí(g)=nà dèénì  
 man camel=DET 3.OBJ-3-buy -PROG 3S.is=REL brother  
 nírò  
 nír=ò  
 1S.POSS=DET  
 ‘The man [who is buying the camel] is my brother.’

- (548) àó [gʷònóò fʃbògà]à làó nír  
 àó gʷóní=ò Ø-j-jób-gì=à làó nír  
 man camel=DET 3.OBJ-3-buy-IPFV=DET friend IS.POSS  
 'The man [who will buy the camel] is my friend.'

#### 8.2.4 *Adverbial Clauses*

Adverbial clauses frequently (but not always) precede the main clause. They are signaled by subordinating morphemes. As is typical for SOV languages (Thompson et al. 2007:238), subordinating morphemes in Dazaga are postpositional.

Reason clauses are formed by the postpositive subordinator *d̥ʒínkàlò* 'because'.<sup>14</sup> Since the adverbial clause usually precedes the main clause, the postpositive subordinator usually occurs between the subordinate and main clauses (but cf. (551), where the adverbial clause occurs in the middle of the main clause). The adverbial clause is also marked with the determiner =*ma* (or one of its allomorphs), preceding *d̥ʒínkàlò*. The use of this subordinator is illustrated in (549) to (551).

- (549) wókí kàntìrá d̥ʒínkàlò lób̥d̥ʒìntò  
 wókí ká-Ø-n-t-r=a d̥ʒínkàlò lób-d-j-n-t  
 time pass-3.OBJ-LV-P-1=DET because tired-1.OBJ-3-LV-P  
 'We are tired, **because** it is late.'
- (550) jégè sòntóò zòntóró dóm̥pòò d̥ʒínkàlò  
 jégè sòntó=ò zòntó=rò Ø-j-t̥m-t=ò d̥ʒínkàlò  
 house 3P.POSS=DET bad=DAT 3.OBJ-3-build-P=DET because  
 táánò  
 Ø-táán  
 3-fall  
 'Because they built their house badly, it fell down.  
 (or 'They didn't build their house well, so it fell down.')

14 This subordinator is also variously pronounced [d̥ʒírkànò], [d̥ʒílánò], [d̥ʒíkànò], [d̥ʒílkàl], or [d̥ʒíkàn]. This subordinator is evidently further shortened to [d̥ʒíkà] in the Duuza dialect of Dazaga, as evidenced in Allanga (2013:25). Kevin Walters (p.c.) has suggested that *d̥ʒínkàlò* may be composed of two morphemes, [d̥ʒínkàl] and [rò] 'DAT', yielding [d̥ʒínkàllò] by assimilation of /r/ to the preceding /l/.

- (551) àǔmàì                      kíruùgà                      mí      sómmà  
           àǔ=mà=ì                kírí=ù=gà                      mí      sòn=mà  
           man=DET=ERG    dog=DET=ACC      son    3S.POSS=DET  
           wóò                      ḍǔ́ǐṅkàlò                      ǝírù  
           Ø-j-bú=ò                ḍǔ́ǐṅkàlò                      Ø-j-jíd  
           3.OBJ-3-bite=DET    **because**                      3.OBJ-3-kill  
           ‘The man killed the dog, **because** it bit his son.’

The placement of the adverbial clause after the main clause verb is ungrammatical, as demonstrated in (552), where the adverbial clause is enclosed in brackets.

- (552) \* àǔmàì                      kíruùgà                      ǝírù  
           àǔ=mà=ì                kírí=ù=gà                      Ø-j-jíd  
           man=DET=ERG    dog=DET=ACC      3.OBJ-3-kill  
           [mí      sómmà                      wóò                      ḍǔ́ǐṅkàlò]  
           mí      sòn=mà                      Ø-j-bú=ò                      ḍǔ́ǐṅkàlò  
           son    3S.POSS=DET    3.OBJ-3-bite=DET    **because**  
           (‘The man killed the dog, **because** it bit his son.’)

There is no separate purposive subordinator, and the causal/reason subordinator *ḍǔ́ǐṅkàlò* ‘because’ can be used to express sentences that, in English and French, have a purpose clause. This is illustrated in (553), where the French elicitation sentence (like the free English translation) includes a purpose clause, but the literal English translation of the Dazaga reflects the change to a reason clause.

- (553) màrá=rò    ìní            tòwó                      jénìrò                      dágìrò  
           màrá=rò    ìní            tòó=ò                      Ø-jén-r=ɔ                      Ø-dák-r=ò  
           3P=DAT    thing    eat.INF=GEN    3.OBJ-give-1=CONTG    3.OBJ-want-1=DET  
           ḍǔ́ǐṅkàlò    ǝíṅàfá                      jóbìr  
           ḍǔ́ǐṅkàlò    ǝíṅàfó-a                      Ø-jób-r  
           **because**    rice-P                      3.OBJ-buy-1  
           ‘I bought rice for them so that they would have something to eat.’  
           [lit. ‘**Because** I wanted to give them something to eat, I bought them rice.’]  
           ‘J’ai acheté du riz pour eux, pour qu’ils aient quelques choses à manger.’

The use of the subordinator =*rò* (which is homophonous with the dative case enclitic =*rò*) to subordinate an adverbial clause is very common, especially for temporal clauses. As with reason clauses formed with *d̥zínkàlò* ‘because’, adverbial clauses formed with the subordinator =*rò* usually precede the main clause, and the boundary between the subordinate and main clause is identifiable by the location of the subordinator =*rò*. When the subordinator =*rò* is used to subordinate adverbial clauses, the determiner also appears on the adverbial clause, preceding the subordinator =*rò*. This use of the subordinator =*rò* is illustrated in (554) and (555).

- (554) *màrá làó nírò írìgàrò*  
*màrá làó nír=ò Ø-írì-gì=à=rò*  
 ? friend 1S.POSS=DET 3-come-IPFV=DET=SUB  
*dèéɲì nírò ʃàì gèéì*  
*dèéɲì nír=ò ʃàì gèé-Ø-j*  
 brother 1S.POSS=DET tea prepare-3.OBJ-3  
 ‘Before my friend arrived, my brother prepared tea.’<sup>15</sup>

- (555) *kʷòí nákínárò kǐjáírò*  
*kʷòí nák-j-n-gɪ=a=rò kǐjái=rò*  
 place sleep-3-LV-IPFV=DET=SUB easy=DAT  
*jéntà*  
*jé-n-t-Ø-à*  
 converse-LV-P-1-HORT  
 ‘While he’s sleeping, let’s talk softly.’

Adverbial clauses can also be formed in a few other (less common) ways, such as the use of the preposition *bàrà* ‘after’ to signal an event that precedes the main clause, as in (556) and (557).

- (556) *írìrèrò bàrà ʃàì tòkkír*  
*írì-rè=rò bàrà ʃàì tòg-t-r*  
 3.come-ADJZ=DAT after tea 3.OBJ-prepare-P-1  
 ‘After he arrived, we made tea.’

15 I am unsure of the meaning and function of the word *màrá* here. Though homophonous with the third person plural free pronoun *màrá* ‘3p’, it does not appear to function as a pronoun in this sentence. One native speaker claimed ‘it’s a preposition to get the attention of one’s interlocutor’ (*c’est une preposition pour attirer l’attention de son interlocuteur*). It may be a discourse particle.



- (557) wòtírù                      tènnaárò                      bárá      dígírò                      dùrú  
           wòtír=ù                      Ø-tér-ní=à=rò                      bárá      dígí=rò                      d-túr-Ø  
           vehicle=DET    3-go-NEG=DET=DAT    after    foot=DAT    1-go-P  
           ‘Because the vehicle doesn’t work, we’ll have to go by foot.’

Contingent mood is used to form a temporal adverbial clause when the main clause expresses a timeless or gnomic statement (it is also used to form logically contingent ‘if’ clauses; cf. §5.7.3), as in (558) to (560)—but also sometimes when the main clause has a particular temporal reference, as demonstrated in (561).

- (558) lóbdǵíńǵó                                      dǵààgdíńì  
           lób-d-j-n-gɪ=ɔ                                      dǵàák-d-t-n-gɪ  
           tired-1.OBJ-3-LV-IPFV=CONTG    extend-1-REFL-LV-IPFV  
           ‘I lie down **when** I am tired.’
- (559) kée                      bí                      ńílóò                                      gáli      ńíí  
           kée                      bí                      ńílí=ɔ                                      gáli      ńíí  
           circumcision    season    rainy.season=CONTG    good    not  
           ‘Circumcision, **when** (it is) rainy season, (is) not good.’
- (560) ńílí                      tìgìsòò                                      gègè      bórò      ńíí  
           ńílí                      Ø-tìgìsú=ò                                      gègè      bórò      Ø-ńíí(g)  
           rainy.season    3-happen=CONTG    malaria    much    3-be  
           ‘**When** it’s rainy season, there’s a lot of malaria.’
- (561) ńíkí                      kógé                                      tìgìsòò                                      jégè      tànó  
           ńíkí                      kógé                                      Ø-tìgìsú=ò                                      jégè      tànó  
           tomorrow    morning.section    3-happen=CONTG    house    1S.POSS  
           ńír  
           ńír-Ø  
           come.IMV-2  
           ‘Tomorrow, **when** it’s between 7:00 and 9:30 in the morning, come to my house.’

### 8.3 Serial Verb Constructions

A serial verb construction (SVC) may be defined as a ‘monoclausal construction consisting of multiple independent verbs with no element linking them and with no predicate-argument relation between the verbs’ (Haspelmath

2016:292). However, the exact nature of SVCs is not completely agreed upon,<sup>16</sup> and issues such as a single versus multiple event reading are disputed (e.g. cf. Kroeger (2004) and Aikhenvald (2006) against Baker & Harvey (2010) and Foley (2010)).<sup>17</sup> For my purposes, I assume the characteristics of prototypical SVCs as sketched in Kroeger (2004:229–230) and Aikhenvald (2006).

SVCs are common in West Africa (Aikhenvald 2006:1). They are sometimes confused with complex predicates,<sup>18</sup> such as light verb constructions (LVCs), and with clause chaining and coordination. Because Dazaga does not exhibit clause chaining (though it is reported in Old Kanembu (Bondarev 2010), Kanuri (Rothmaler 2011), and Beria (Jakobi & Crass 2004:167–175)), my main concern here is to determine if SVCs occur in Dazaga as constructions distinct from LVCs and coordination.

As noted in §5.3.2, a crucial distinction between LVCs and SVCs (including in Dazaga) is that LVCs may select their preverbs from a range of syntactic categories, especially nouns and adjectives. Consequently, the two predicational elements of an LVC are often not both verbs. In contrast, an SVC ‘contains two or more *verbs*’ (Kroeger 2004:229; emphasis added).

Clausal coordination (cf. §8.1) in Dazaga is also clearly distinct from SVCs: the two verbs in an SVC (as identified by various syntactic tests) are never separated by a coordinator, whereas clausal coordination is never asyndetic; the two verbs in an SVC always share at least one argument (as is typical in SVCs; cf. Kroeger 2004:229; Haspelmath 2016:309), whereas verbs in coordinate clauses need not share any arguments.

While cross-linguistically it is very common for both verbs of an SVC to share a grammatical subject (cf. Kroeger 2004:230; Baker 1989:513), this is often not the case in causative SVCs in Dazaga, as illustrated in examples (485), (488), and (490), above. These same examples contradict Haspelmath’s (2016:210) ninth generalization about SVCs, namely that, ‘In different-subject SVCs, the second verb is always intransitive (cf. Aikhenvald 2006:16)’.

16 Cf. Staden & Reesink (2008:21): ‘Despite the by now impressive literature on serial verb constructions, there is still surprisingly little agreement on what exactly defines serial verb constructions’.

17 Haspelmath (2016:306) considers the ‘single event’ criterion redundant if SVCs are defined as necessarily monoclausal.

18 Indeed, some linguists consider SVCs to be a type of complex predicate (e.g. Baker & Harvey 2010:13). However, Amberber et al. (2010:10) note that there is ‘currently no widely accepted answer’ to the question of what exactly a complex predicate is. Baker (1997:247) remarks: ‘The term ‘complex predicate’ in syntactic theory is still semantically transparent; it can refer to any predicate that a particular researcher finds difficult . . .’.

Another important, though disputed (as mentioned above), reason for distinguishing SVCs in Dazaga is that the two verbs are understood as a single (though sometimes complex) event; this is demonstrated particularly in translations by native speakers of Dazaga into languages such as French and English, which lack SVCs. In these cases, the original SVC is translated as a single event (as seen in the examples below).

Cross-linguistically, both verbs of an SVC must be of the same tense, aspect, mood, and polarity (Kroeger 2004:235; cf. Aikhenvald 2006:8),<sup>19</sup> though, in many languages, these values are only marked on one of the verbs in an SVC.<sup>20</sup> Dazaga exhibits this pattern, marking aspect and mood on the second verb in an SVC, as illustrated in (562) for optative mood and in (563) for imperfective aspect.

- (562) állàì      bígì    tàṅó      sèmèí              ḍǵéné  
 állà=ì      bígì    tàṅó      Ø-sɛmɛ-j          d-jén-é  
 God=ERG    sin    1S.POSS    3.OBJ-pardon-3    1.OBJ-3-give-OPT  
 'May God forgive me my sin.'

- (563) jôm    nááná    èrǵĩ    kúrǵíárò      kàrànr  
 jôm    nááná    èrǵĩ    kúrǵí-á=rò    kara-Ø-n-r  
 day    every    story    child-P=DAT    read-3.OBJ-LV-1  
 jénìrìgì  
 Ø-jén-r-gì  
 3.OBJ-give-1-IPFV  
 'Every day, I read a story (to my) children.'

Aspect and mood marked by affixation cannot be marked on only the first verb of an SVC, as demonstrated in (564) and (565), or on both the first and second verbs of an SVC, as demonstrated in (566) and (567).

- (564) \* állàì      bígì    tàṅó      sèmèíé              ḍǵén  
 állà=ì      bígì    tàṅó      Ø-sɛmɛ-j-é          d-j-jén  
 God=ERG    sin    1S.POSS    3.OBJ-pardon-3-OPT    1.OBJ-3-give  
 ('May God forgive me my sin.')

19 Haspelmath (2016:308) states that it is unclear how universal this restriction is with regard to aspectual values.

20 When tense, aspect, mood, and polarity are only marked on one of the verbs in an SVC, 'it occurs in a peripheral position, i.e. preceding the first verb or following the last verb' (Haspelmath 2016:309).

- (565) \* jôm nááná èrìfí kúrfíárò kàrànírgì  
 jôm nááná èrìfí kúrfí-á=rò kara-Ø-n-r-gì  
 day every story child-P=DAT read-3.OBJ-LV-1-IPFV  
 jénìr  
 Ø-jén-r  
 3.OBJ-give-1  
 ('Every day, I read a story (to my) children.')
- (566) \* állàì bígì tàṅó sèmèíé ḍ́zéné  
 állà=ì bígì tàṅó Ø-semɛ-j-é d-j-jén-é  
 God=ERG sin 1S.POSS 3.OBJ-pardon-3-OPT 1.OBJ-3-give-OPT  
 ('May God forgive me my sin.')
- (567) \* jôm nááná èrìfí kúrfíárò kàrànírgì  
 jôm nááná èrìfí kúrfí-á=rò kara-Ø-n-r-gì  
 day every story child-P=DAT read-3.OBJ-LV-1-IPFV  
 jénìrìgì  
 Ø-jén-r-gì  
 3.OBJ-give-1-IPFV  
 ('Every day, I read a story (to my) children.')

However, imperative mood, which is indicated by the occurrence of the imperative stem, rather than by affixation, occurs in both the first and second verbs of an imperative SVC, as illustrated in (568) and (569).

- (568) dèbérì gísó tén  
 dèbérì Ø-gísó-Ø t-jén-Ø  
 effort 3.OBJ-do.IMV-2 1.OBJ-give.IMV-2  
 'Make an effort for me!'
- (569) búrú lôn ànìfí dír  
 búrú Ø-lôn-Ø ànìfí Ø-dír-Ø  
 hole 3.OBJ-dig.IMV-2 pure.sand 3.OBJ-take.out.IMV-2  
 'Dig a hole to take out pure sand.'<sup>21</sup>

21 Baker's analysis (1989:527–529) requires that SVCs share an internal argument. If the SVC in (569) is analyzed as having two monotransitive verbs, each with a different object, then it could not be a SVC according to this criterion. However, if the second verb, 'take out', were analyzed as ditransitive, subcategorizing for an agent, theme, and source, and if the

Kroeger (2004:229–233) offers several diagnostic tests for distinguishing SVCs from other constructions. These tests include possible patterns of tense, aspect, mood, and negation marking, whether a constituent can be questioned, whether a coordinator can be used, and whether the verbs can be interpreted as referring to a single event (these latter two issues are addressed above).

In the following paragraphs, I apply tests related to patterns of tense, aspect, mood, and negation marking and whether a constituent can be questioned. Cross-linguistically, SVCs often have restrictions on tense, aspect, mood, and negation marking that do not hold for coordinate constructions. Additionally, it is often possible to question one argument in an SVC, whereas most languages do not allow questioning of only one coordinand of a coordinate construction (cf. Baker 1989:514).

First, aspect marking patterns distinguish coordinate constructions from SVCs. Two of the possible patterns for coordinate constructions are illustrated in (570) and (571). In (570), the first verb has perfective (unmarked) aspect and the second has imperfective aspect; in (571), the first verb has progressive aspect and the second has imperfective aspect.

- (570)    bíní    ní    f̥ɔ̀f̥ɔ̀rí    déì                    ʃíkí                    ní  
           bíní    ní    f̥ɔ̀f̥ɔ̀rí    Ø-j-téì                    ʃíkí                    ní  
           today    and    bird    3.OBJ-3-catch    tomorrow    and  
           f̥ɔ̀rígì  
           Ø-j-jíd-gì  
           3.OBJ-3-kill-IPFV  
           ‘He caught a bird today, and tomorrow he will kill it.’

- (571)    ónnó    ní    jínùù                    górí                    f̥ɔ̀í  
           ónnó    ní    jíní-ù                    Ø-j-kór-í                    Ø-f̥ɔ̀í(g)  
           now    and    meat=DET    3.OBJ-3-cut-PROG    3-be  
           tòwàí            ní    d̥éé̃nì                    sómmàì                    wórtigì  
           tòwàí            ní    d̥éé̃nì                    sòn=mà=i                    Ø-j-bórt-gì  
           afternoon    and    brother    3S.POSS=DET=ERG    3.OBJ-3-cook-IPFV  
           ‘Right now, he’s cutting up the meat, and this afternoon his brother  
           will cook it.’

With SVCs, this differential aspect marking is not possible. I have already demonstrated in (562) to (567) that aspect and mood must be marked only on the

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source were the same (‘shared’) as the object of the first verb, then this could be considered a true SVC, even by Baker’s criteria.

second verb of the SVC. Consequently, it is not possible for the two verbs in an SVC to take different aspectual marking on each verb, as demonstrated in (572).

- (572) \*    músà      d̥ʒànáà      góìnì      f̥jírí  
           músà      d̥ʒàná=à      gó-Ø-j-n-ì      Ø-f̥jír(g)  
           (name)    knife=DET    take-3.OBJ-3-LV-PROG    3-be  
           jínùù      górigì  
           jíní-ù      Ø-j-kór-gì  
           meat=DET    3.OBJ-3-cut-IPFV  
           ('Musa will cut the meat with the knife.')

Patterns of negation marking also distinguish between coordinate constructions and SVCs. In a coordinate construction, it is possible to assert the truth of one verb and negate the other, as demonstrated in (573). This is not possible with an SVC; negation can only be marked on the second verb in the SVC, as demonstrated in (574) to (576). When an SVC is negated, the negation marked on the second verb is understood to have scope over the first verb as well, as demonstrated in (574).

- (573)    búrú    lói            f̥jírò    ànìf̥í      d̥ìròní  
           búrú    ló-Ø-j        f̥jírò    ànìf̥í      Ø-j-tír-ní  
           hole    dig-3.OBJ-3    but    pure.sand    3.OBJ-3-pull.out-NEG  
           'He dug a hole, but didn't take out pure sand.'

- (574)    búrú    lói            ànìf̥í      d̥ìròní  
           búrú    ló-Ø-j        ànìf̥í      Ø-j-tír-ní  
           hole    dig-3.OBJ-3    pure.sand    3.OBJ-3-pull.out-NEG  
           'He didn't dig a hole to take out pure sand.'

- (575) \*    búrú    lòinní            ànìf̥í      d̥írò  
           búrú    ló-Ø-j-n-ní        ànìf̥í      Ø-j-tír  
           hole    dig-3.OBJ-3-LV-NEG    pure.sand    3.OBJ-3-pull.out  
           ('He didn't dig a hole to take out pure sand.')

- (576) \*    búrú    lòinní            ànìf̥í      d̥ìròní  
           búrú    ló-Ø-j-n-ní        ànìf̥í      Ø-j-tír-ní  
           hole    dig-3.OBJ-3-LV-NEG    pure.sand    3.OBJ-3-pull.out-NEG  
           ('He didn't dig a hole to take out pure sand.')

The test of whether only one half or part of a construction can be questioned does not distinguish SVCs from coordinate constructions in Dazaga. A single constituent can be questioned from both coordinate constructions, as in (577) and (578), and SVCs, as in (579) and (580).<sup>22</sup>

- (577) làó níró ínní d̥ʒásò ní òrkó ɸʒbò  
 làó níró ò ínní Ø-j-ɸʒás ní òrkó Ø-j-jób  
 friend 1S.POSS=DET what 3.OBJ-3-sell and goat 3.OBJ-3-buy  
 ‘What did my friend sell and bought a camel?’

- (578) ínní lói ní ànɪĩ díró  
 ínní ló-Ø-j ní ànɪĩ Ø-j-tír  
 what dig-3.OBJ-3 and pure.sand 3.OBJ-3-pull.out  
 ‘What did he dig and took out pure sand?’

- (579) ínní lói ànɪĩ díró  
 ínní ló-Ø-j ànɪĩ Ø-j-tír  
 what dig-3.OBJ-3 pure.sand 3.OBJ-3-pull.out  
 ‘What did he dig to take out pure sand?’

- (580) búró lói ínní díró  
 búró ló-Ø-j ínní Ø-j-tír  
 hole dig-3.OBJ-3 what 3.OBJ-3-pull.out  
 ‘What did he dig a hole to take out?’

SVCs frequently function in ‘valency-increasing’ ways (Aikhenvald 2006:5), such as by introducing a beneficiary (cf. Kroeger 2004:227). SVCs with this beneficiary function use the verb *tèní* ‘give’ (as is often the case cross-linguistically; cf. Aikhenvald (2006:2)). This ‘beneficiary’ function using the verb *tèní* ‘give’, where the verb *tèní* ‘give’ occurs as the second verb in the SVC, is illustrated in examples (581) to (583) (as well as example (563)). In these constructions, the second verb of the SVC is ditransitive, but its theme is understood to be the object of the first verb in the SVC (cf. Baker 1989:516).

22 This grammatical acceptability is perhaps not surprising, since this constraint properly applies to filler-gap constructions (extraction), and not to *in situ* questioning (Paul Kroeger, p.c.).

- (581) ábbà níròì kútùb ǫǫbò dǫén  
 ábbà nír=ò=ì kútùb Ø-j-jób d-j-jén  
 father 1S.POSS=DET=ERG book 3.OBJ-3-buy 1.OBJ-3-give  
 'My father bought a book for me.'
- (582) fátimè àfràí dǫóm tén  
 fátimè àfràí Ø-dǫóm-Ø t-jén-Ø  
 (name) basket 3.OBJ-make.IMV-2 1.OBJ-give.IMV-2  
 'Fatime, make me a winnowing basket.'
- (583) dèbérì gísó tén  
 dèbérì Ø-gísó-Ø t-jén-Ø  
 effort 3.OBJ-do.IMV-2 1.OBJ-give.IMV-2  
 'Make an effort for me!'

Causatives from simple verbs (cf. §8.2.2.1.4) can also be formed as SVCs using the verb *téní* 'give', but, unlike the beneficiary use, the verb *téní* 'give' in causative SVCs occurs as the first verb in the SVC, as illustrated in (584).

- (584) bródì nínìr bóm  
 bródì n-jén-r Ø-bó-m  
 bread 2.OBJ-give-1 3.OBJ-eat-2  
 'I made you eat the bread.'

Another common function of SVCs is to express an action and its purpose (Kroeger 2004:228). This purposive use is illustrated in examples (585) to (588). In these examples, the order of the two verbs is iconic,<sup>23</sup> with the first verb expressing the main action and the second verb expressing the purpose. Each object immediately precedes its verb (cf. the different order with dative marked primary object in (563)).

- (585) búrú lón ànǫǫ dír  
 búrú Ø-lón-Ø ànǫǫ Ø-dír-Ø  
 hole 3.OBJ-dig.IMV-2 pure.sand 3.OBJ-take.out.IMV-2  
 'Dig a hole to take out pure sand.'

23 Haspelmath (2016:309) considers this to be true of nearly all cause-effect or sequential SVCs. He notes the interesting fact that this generalization holds true even when the temporally iconic order is opposite to a language's normal order for the main and subordinate clauses (cf. Baker 1989:525–527).



- (586)    búláà            kòrtó            séltè    àì    gón  
           bùló=à       Ø-kòrtó-Ø      séltè    àì    Ø-gón-Ø  
           potty=DET   3.OBJ-bring-2   filth   this   3.OBJ-take-2  
           ‘Bring the potty to remove this refuse.’<sup>24</sup>
- (587)    bùrdír            èkkáà            táàr  
           bùrt-n-r      èkké-a-à       Ø-táà-r  
           jump-LV-1   tree-P=DET   3.OBJ-catch-1  
           ‘I jumped to catch onto the tree.’
- (588)    méré    kî      ànǝǝ            dòóssò    gálirò            jèjéntír  
           méré    kî      ànǝǝ            d-bóz-t    gáli=rò            jèjé-n-t-r  
           3S      with   long.time   1-stay-P    good=DAT   converse-LV-P-1  
           ‘We stayed with him for a while to converse well.’

Aikhenvald (2006:25) mentions several other ‘valency increasing’ SVC types, including what she calls ‘instrumental’ and what she calls ‘comitative’ (or ‘sociative’). In these usages, one of the verbs in the SVC functions to introduce an instrument or comitative constituent. An instrumental SVC is illustrated in (589), in contrast to the coordinate structure in (590). A comitative SVC is illustrated in (591).

- (589)    músà            d̥ʒànáà            góì            jínúù            górò  
           músà            d̥ʒàná=à            gó-Ø-j            jíní=ù            Ø-j-kór  
           (name)   knife=DET   take-3.OBJ-3    meat=DET    3.OBJ-3-cut  
           ‘Musa cut the meat with the knife.’
- (590)    músà            d̥ʒànáà            góì            ní            jínúù            górò  
           músà            d̥ʒàná=à            gó-Ø-j            ní            jíní=ù            Ø-j-kór  
           (name)   knife=DET   take-3.OBJ-3    and   meat=DET    3.OBJ-3-cut  
           ‘Musa took the knife and (then) cut the meat.’
- (591)    bònú            gón                            kólàṅà            sòtó  
           bònú            Ø-gón-Ø                    kólò-a=ṅà            Ø-sòtò-Ø  
           hoe    3.OBJ-take.IMV-2   field-P=ACC    3.OBJ-go.to.IMV-2  
           ‘Go to (the) fields with your hoe.’

24    Interestingly, Haspelmath (2016:294) notes that SVCs in which each verb has a different patient, as in examples (585) to (586), are ‘not very common’.

Other examples of SVCs do not fit easily into the categories described above. At least some of these are probably what have been called ‘idiomatic’ SVCs (Kroeger 2004:228; Aikhenvald 2006:2), where the meaning of the SVC is not compositional.<sup>25</sup> This kind of SVC is illustrated in examples (592) to (593), where the combination of the verbs *gʷódí* ‘take’ and *tírèí* ‘have’ consistently means ‘carry’. It is perhaps noteworthy in this regard that Dazaga does not have a distinct simple verb for ‘carry’.

- (592) mí sómmà èfirí dáá gòì déi  
 mí sòn=mà èfirí dáá gó-Ø-j Ø-j-téi  
 son 3S.POSS=DET shoulder on take-3.OBJ-3 3.OBJ-3-have  
 ‘He carried his son on (his) shoulders.’

- (593) dàó dáá ìí gòì déi  
 dàó dáá ìí gó-Ø-j Ø-j-téi  
 head on water take-3.OBJ-3 3.OBJ-3-have  
 ‘She carried water on her head.’ / ‘On her head, she carried water.’

Additional examples of SVCs are presented in (594) to (596).

- (594) mèréŋà firírò fǿbbò fǿrù  
 mèré=ŋà firí=rò Ø-j-jóbbò Ø-j-jír  
 3S=ACC arrow=DAT 3.OBJ-3-pierce 3.OBJ-3-kill  
 ‘He killed it with an arrow.’

- (595) fǿi gǎnír kǐsír  
 fǿi gán-Ø-n-r Ø-kís-r  
 tea precede-3.OBJ-LV-1 3.OBJ-make-1  
 ‘I made tea earlier.’<sup>26</sup>

- (596) jégè sómmà òíró kílím fùrtǿi déi  
 jégè sòn=mà òíró kílím fúrt-Ø-j Ø-j-téi  
 house 3S.POSS=DET in rug spread-3.OBJ-3 3.OBJ-3-have  
 ‘In his house, he spread a rug.’

25 Haspelmath (2016:296) does not accept non-compositional or idiomatic SVCs as true SVCs.

26 It is possible that this is an example of the ‘completive aspect’ use of SVCs mentioned by Kroeger (2004:228).

## Conclusion

In the present study, I have provided an overview of the phonology, morphology, and syntax of Dazaga, as represented by the Keshirda dialect. It is my hope that this work will serve as the starting point for further research of Dazaga—in more detail, in a more comprehensive treatment (including phonology), and with a broader dialectical scope.

In this concluding chapter, I summarize some of the features of Dazaga that are cross-linguistically unusual, and then suggest phenomena of the language that I think would be particularly fruitful areas for further study.

### 9.1 Typologically Unusual Features of Dazaga

The basic features of Dazaga grammar are summarized in §1.3. In this section, I briefly point out some typologically interesting features of Dazaga, which have been discovered as a result of this study. Each of these is described in more detail in previous chapters.

Africa has traditionally been considered to have very few languages with ergative features (cf. Creissels 2000:234; Creissels et al. 2008:90), though several have been reported in recent decades (e.g. Shilluk (Miller & Gilley 2001); Pări (Andersen 1988); Loma (Rude 1983); see also König (2008:95–96) for a few additional languages). In his typological survey of ergativity, McGregor (2009:494) reports Shilluk as the sole known example of an African language with optional ergative case marking (cf. McGregor 2010:1631). However, optional ergative case marking has recently been identified in the Saharan language Beria (Wolfe & Adam 2015), and Dazaga can now be added to the list of at least three African languages to exhibit this feature.

Another unusual feature of Dazaga is the marking of the primary object of ditransitive verbs with dative case. While the marking of the recipient of a ditransitive verb as the primary object is common (Siewierska & Bakker 2007:1007), the marking of the primary object with dative case appears to be quite rare (though this is attested in at least a few other languages; cf. §6.3.3, footnote 13).

Dazaga does not have morphological causatives, but does exhibit causative light verb constructions, which share features with both periphrastic causatives (non-derived) and with morphological causatives (a single phonological

word). I have been able to identify only a few other languages that uses causative light verbs as a primary strategy for forming causative constructions (namely, Urdu (Butt 1995:35–87; 2010) and Persian (e.g. Megerdooomian 2001)).

Finally, Dazaga has two relativization strategies (gap and pronoun retention) that can be used across the levels of the Accessibility Hierarchy (Keenan & Comrie 1977). This is unexpected given the tendency for languages to use the gap strategy to relativize grammatical relations higher on the Accessibility Hierarchy and pronoun retention for grammatical relations lower on the Accessibility Hierarchy. Additionally, the use of pronoun retention to relativize the subject grammatical relation is rare in African languages (Kuteva & Comrie 2005).

## 9.2 Areas for Further Research

Given the brevity of the present study, our knowledge of the grammar of Dazaga would benefit greatly from a more thorough investigation of almost every topic. Nevertheless, in the course of my research and writing, certain issues in Dazaga grammar have struck me as particularly deserving of further research. In the following paragraphs I mention just a few of these issues.

I have provided a brief analysis of tone, but most of my conclusions are based on tonal patterns at the level of the phonological word. A fuller understanding of tone will require a much broader study, certainly including tonal patterns over higher level constituents such as the clause and sentence, including intonation.

Three other topics for further research are likely, in my estimation, to be interrelated. I have given considerable space to the case system, but much work remains to explain the patterns of occurrence of optional ergative and accusative case enclitics. Related work in Kanuri (Cyffer 1983; Hutchison 1986; Bondarev et al. 2011) and Beria (Jakobi 2006; Wolfe & Adam 2015) suggests some of the lines of inquiry along which we may expect to find answers. The dative case marking on primary objects in ditransitive clauses, though not unheard of, merits further attention.

I have briefly covered the issues of topic and focus constructions, but more work in this area would greatly benefit our understanding of the information structuring patterns of Dazaga (and perhaps of the patterns of optional case marking).

Discourse features are outside the scope of the present study. However, aside from being an important area of study in their own right, they would certainly be informative to our understanding of (especially optional) case marking as well as topic and focus patterns.

# Appendix: Supplemental Text and Sentences

In this appendix, I have included additional data which have been analyzed to an extent (namely, by being interlinearized), but which have not been included in or directly commented on in the body of this book. This appendix comprises two sections. The first section is a collection of interlinearized, but relatively random, sentences. The second section is a short story, which was told by a Daza man and was recorded and interlinearized in draft by Kevin Walters before I edited the interlinearization. The glossing conventions used in this appendix are those used in the body of the book. For the short story, I do not have French translations. Where I have French translations of the sentences, I have included these translations as further information useful to the analysis of the sentence.

## Section 1 Sentences

- (597) ábbà níróì gálà ñǽǽn  
ábbà níró=ò=ì gálà ñ-j-jǽn  
father 1S.POSS=DET=NOM advice 2.OBJ-3-give  
'My father gave you (sg.) advice.'
- (598) àǵírì èrkéllìrù dǵ-àó  
àǵír=ì èrkéllì=rù d-j-bábo  
donkey=ERG kick=DAT 1.OBJ-3-hit  
'The donkey struck me with a kick.'  
'L'âne m'a donné un coup par derrière.'
- (599) tìrkàníró nǽǽdonto  
tìrkàní=rò n-j-ton-t  
to.walk=DAT 2.OBJ-3-cause-P  
'They made you walk.'  
'Ils vous ont fait marcher.'
- (600) dári sómmà metra ínná góra  
dári sòn=mà metrò-a ínní-a gór-a  
height 3S.POSS=DET meter-P what-P about-P  
'About how tall is he?' [lit. 'His height (is) about what meters?']  
'Sa taille est combien de mètres?'

- (601) dèéŋà nírà ɸjúú jégè nórò írdò  
 dèéŋì-a ní-r-à ɸjúú jégè nór=ò Ø-ír-t  
 brother-P 1S.POSS-P two house 1S.POSS=DET 3-come-P  
 'My two brothers came to my house.'  
 'Mes deux frères sont venus chez moi.'
- (602) kírí kóbbó d̥ʒowoo jìd̥ír  
 kírí kóbbó d-j-bó=ò Ø-jíd-r  
 dog old 1.OBJ-3-bite=DET 3.OBJ-kill-1  
 'I killed the dog that bit me.'  
 'J'ai tué le vieux chien qui m'a mordu.'
- (603) kírí sómmàgà ɸjùŋúr  
 kírí sòn=mà=gà ɸjúk-Ø-n-r  
 dog 3S.POSS=DEF=ACC tease-3.OBJ-LV-1  
 'I teased his dog.'  
 'J'ai taquiné son chien.'
- (604) jíní ní-r=ò àú àì=ì ginná Ø-ówì-ì  
 meat 1S.POSS=DET man this=NOM all 3.OBJ-eat-3  
 'My meat, this man ate (it) all.'  
 'Ma viande, cet homme a tout mangé.'
- (605) àbàrí nómmàì àrìímà nígè dín-nù  
 àbàrí nóm=mà=ì àrìí=mà nígè Ø-j-tín-nù  
 pat.uncle 2S.POSS=DET=NOM woman=DET marriage 3.OBJ-3-put  
 'Your paternal uncle arranged the marriage with the woman.'  
 'C'est ton oncle qui a attaché le mariage.'
- (606) àú àì jíní ní-r=ò ginná Ø-ówì-ì  
 man this meat 1S.POSS=DET all 3.OBJ-eat-3  
 'This man, he ate all my meat.'  
 'Cet homme, il a mangé toute ma viande.'
- (607) àrìí àì ájá ní-r  
 woman this mother 1S.POSS  
 'This woman (is) my mother.'  
 'Cette femme, c'est ma mère.'

- (608) ìní fàròmmà dàázò  
 ìní Ø-fàrò-m=mà d-bázò  
 thing 3.OBJ-say-2=DET 1.SUBJ-hear  
 'I heard what you said.'  
 'J'ai entendu ce que tu as dit.'
- (609) mèréṅà kákkàrdò kòfùnr  
 mèré=ṅà kákkàr=rò kòfù-Ø-n-r  
 3S=ACC book=DAT fan-3.OBJ-LV-1  
 'I fanned it with a book.'  
 'Je l'ai éventé avec un cahier.'
- (610) àró òtír=ò ʃí  
 custom 1P.POSS=DET NEG  
 '(That is) not our custom.'  
 'Ce n'est pas notre tradition.'
- (611) àrá òtíràà ʃí  
 àró-a òtír-à=à ʃí  
 custom-P 1P.POSS-P=DET NEG  
 '(Those are) not our customs.'
- (612) ài bàá nír=ò àṅnì sòn  
 this paternal.aunt 1S.POSS=DET husband 3S.POSS  
 'This (person is the) husband of my paternal aunt.'  
 'C'est le mari de ma tante paternelle.'
- (613) jó tórkói ní àìrò bàrà árógà ʃín-ní  
 jó tórkó=ì ní àì=rò bàrà áró=gà Ø-j-jír-ní  
 PART jackal=ERG and this=DAT after goat=ACC 3.OBJ-3-kill-NEG  
 'So, on the one hand, the jackal no longer killed the goat ...'
- (614) búṣù tráì ʃòzòntʃinné  
 búṣù trá=ì ʃòzò-n-j-n-rɛ  
 trouble INDF=ERG guide-2.OBJ-3-LV-ADJZ  
 'A trouble is guiding you.'  
 'Un malheur est en train de te guider.'

- (615) àníí m̀èrégà bàràíṅàà sóró  
 àníí m̀èrégà bara-Ø-1-n-g1=a sóró  
 man 3S=ACC search.for-3.OBJ-3-LV-IPFV=DET name  
 sómmà júṣùf  
 sòn=mà júṣùf  
 3S.POSS=DET (name)  
 ‘The man who is looking for her, his name (is) Joseph.’  
 ‘L’homme qui la cherchait s’appelle Joseph.’
- (616) àú mí sómmà tìntá kòlógò ǽǽṅà  
 àú mí sòn=mà tìntá kòlógò Ø-ǽǽ(g)=ṅà  
 man son 3S.POSS=DET 1P next.to 3-be=REL  
 kî núnkîr  
 kî núk-n-t-r  
 with speak-LV-P-1  
 ‘We spoke with a man [whose son live near us].’  
 ‘Nous avons parlé avec un homme dont le fils vit près de chez nous.’
- (617) ṅàáì/\*Ø gʷòní sómmà wùì  
 ṅàá=ì/\*Ø gʷòní sòn=mà wú-Ø-ì  
 who=ERG/\*Ø camel 3S.POSS=DET steal-3.OBJ-3  
 ‘Who stole his camel?’  
 ‘Qui a volé son chameau?’
- (618) màrá làó nírò írìgàrò  
 màrá làó nír=ò Ø-írì-gì=à=rò  
 ? friend 1S.POSS=DET 3-come-IPFV=DET=DAT  
 bàràbóskòjè kòlújè gèénìr  
 bàràbóskò=jè kòlú=jè gèé-Ø-n-r  
 crushed.millet=and sauce=and prepare-3.OBJ-LV-1  
 ‘Before my friend arrived, I prepared buruburusku and sauce.’  
 ‘Avant que mon ami est arrivé, j’ai préparé du buruburusku et sauce.’
- (619) kólà nírò ḡinná beɛɛnir  
 kólò-a nír=ò ḡinná beɛɛ-Ø-n-r  
 field-P 1S.POSS=DET all plough-3.OBJ-LV-1  
 ‘I ploughed all my fields.’  
 ‘J’ai labouré tout mon champs.’



- (620) té ginná ípà  
that all why  
'Why all that?'  
'Pourquoi tout ça?'
- (621) g<sup>w</sup>ónàà ginná túrtù  
g<sup>w</sup>óní-a=a ginná Ø-túr-t  
camel-P=DET all 3-leave-P  
'All the camels left.'  
'Tous les chameaux sont partis.'
- (622) \* g<sup>w</sup>óná ginnáà túrtù  
g<sup>w</sup>óní-a ginná=a Ø-túr-t  
camel-P all=DET 3-leave-P  
( 'All the camels left.' )  
( 'Tous les chameaux sont partis.' )
- (623) ámmá árá ginná dèéṅà níràà  
men árá ginná dèéṅì-a nír-a=a  
men these all brother-P 1S.POSS-P=DET  
'All these men are my brothers.'  
'Tous ces hommes sont mes frères.'
- (624) mǎ́á gòṛàà wòdá  
mǎ́-a gòṛ-a=a wòdó-a  
fruit-P acacia.tree-GEN.P bitter-P  
'Acacia tree fruits are bitter.'  
'Les fruits d'arabica sont amers.'
- (625) àú g<sup>w</sup>ónóò fǽbìì fǽṅà dèéṅì  
àú g<sup>w</sup>ónó=ò Ø-j-jób-ì Ø-fǽ(g)=ṅà dèéṅì  
man camel=DET 3.OBJ-3-buy-PROG 3-be=REL brother  
nír  
nír  
1S.POSS  
'The man who is buying the camel is my brother.'  
'L'homme qui achète le chameau est mon frère.'

- (626) ámmá òrkó kàsógòrò fǽbò fǽrù  
 ámmá òrkó kàsógò=rò Ø-j-jób=ò Ø-j-jíd  
 man.DET goat market=DAT 3.OBJ-3-buy=DET 3.OBJ-3-kill  
 'The man killed the goat which he bought in the market.'  
 'L'homme a tué la chèvre qu'il a acheté au marché.'
- (627) ntà nebi kógóó àó nǽǽòǹà  
 ntà nebi kógóó àó n-j-báb-ǹà  
 2s prophet if man 2.OBJ-3-hit=REL  
 hànàníǹròò fá  
 hana-Ø-n-m-gr-rɛ=ɔ Ø-fá-Ø  
 know-3.OBJ-LV-2-IPFV-ADJZ-CNTG 3.OBJ-say.IMV-2  
 'If you're a prophet, tell if you know who the man is who's hitting you.'
- (628) ámmá kólò fǽbò òrò tígánì fǽí  
 ámmá kólò Ø-j-jób=ò òrò Ø-tígánò-ì Ø-fǽí(g)  
 man.DET field 3.OBJ-3-buy=DET in 3-walked-PROG 3-be  
 'The man walked in the field which he'd bought.'  
 'L'homme marchait dans le champ qu'il avait acheté.'
- (629) m̀erí àì òwórá òtáà òrò állàì  
 m̀erí àì òwórá-a òtám-a òrò állà=ì  
 message this heart-P 2P.POSS-P in God=ERG  
 dínǹǹà náddíró gáfìtò  
 Ø-j-tínn=ǹà náddí=rò Ø-gáfì-t-Ø  
 3.OBJ-3-put=REL child=DAT 3.OBJ-obey.IMV-P-2  
 'This word that God has put in yours hearts, obey like a child.'
- (630) ónnó dáràjà óǹkò dédìǹà ginná sóppò  
 ónnó dáràjà óǹkò Ø-j-téi-t=ǹà ginná sóppò  
 now glory before 3.OBJ-3-have-P=REL all Ø-leave  
 ní táánì fǽí  
 ní Ø-táán-ì Ø-fǽí(g)  
 and 3-fall-PROG 3-be  
 'Now, all the glory they had before has left and is falling.'
- (631) ámmá dǽǽàǹà fǽbòrò jíní górò  
 ámmá dǽǽàǹà Ø-j-jób=ò=rò jíní Ø-kór  
 man.DET knife 3.OBJ-3-buy=DET=DAT meat 3.OBJ-3-cut  
 'The man cut the meat with the knife which he'd bought.'  
 'L'homme coupe la viande avec le couteau qu'il avait acheté.'

- (632) àú mí sómmà tìntá kòlógò ffinà kî  
 àú mí sòn=mà tìntá kòlógò Ø-ffì(g)=ηà kî  
 man son 3S.POSS=DET 1P next.to 3-be=REL with  
 núŋkîr  
 núk-n-t-r  
 speak-LV-P-1  
 'We spoke with a man whose son live near us.'  
 'Nous avons parlé avec un homme dont le fils vit près de chez nous.'

- (633) ffinnà lantí bàràntír ffinró bórò  
 ffinnè=a lantí bara-Ø-n-t-r ffinró bórò  
 door=DET open-INF search.for-3.OBJ-LV-P-1 but very  
 dmaro ḍ̣àktiré  
 dina=rò ḍ̣àktí-ré  
 strength=DAT close-ADJZ  
 'We tried to open the door, but it was closed too firmly.'  
 'Nous avons essayé de ouvrir la porte, mais elle était fermé trop forte.'

- (634) jégàà lantiré ffinró ámmá bèkkí  
 jégè=a lantí-ré ffinró ámmá Ø-bég-t  
 house=DET open-ADJZ but people 3-be.not-P  
 'The house (is) open, but there are no people.'  
 'La maison est ouverte mais il n'y a pas de gens.'

- (635) dirdàà gázoré bèí ffinró mòmòrffì  
 dirdé=a gázò-ré Ø-bég ffinró mòmòrt-j  
 king=DET 3-laugh=ADJZ 3-be.not but smile-3  
 'The king didn't laugh, but he did smile.'  
 'Le roi n'a pas rit mais il a souri.'

- (636) jíní sòm dèiré wói ní násò  
 jíní sòm Ø-j-téi-ré Ø-j-bó ní násò  
 meat poison 3.OBJ-3-have-ADJZ 3.OBJ-3-eat and 3-die  
 'He ate poisoned meat [lit. 'meat having poison'] so [lit. 'and'] he died.'  
 'Il a mangé de la viande poisonnée donc il est mort.'

- (637) hòjùpfì ní wòdàré sómmà déi  
 hòjùpf-Ø-j ní wòdàré sòn=mà Ø-j-téi  
 surprise-3.OBJ-3 then enemy 3S.POSS=DET 3.OBJ-3-have  
 'He surprised (his enemy), then caught [lit. 'had'] his enemy.'  
 'Il a surpris son ennemi pour l'attraper.'

- (638) dīgìsá fǽúú dòózò ní sàgá dǽàrdá dḗr  
 dīgìsá fǽúú d-bóz ní sàgá dǽàrdá d-tér  
 days two 1-rest then back garden 1-go  
 'I rested two days, then I went back to (my) garden.'  
 'Je suis resté deux jours puis je me suis reparti au jardin.'
- (639) wètír sómmà dǽíkì ní kántǽí  
 wètír sòn=mà dǽík-Ø-j ní kánt-j  
 vehicle 3S.POSS=DET accelerate-3.OBJ-3 and pass.by-3.OBJ-3  
 'He accelerated his vehicle, then passed by (something).'  
 'Il a accéléré sa voiture pour passer.'
- (640) ámmárò ñàhílà fǽ́n ní kùnfǽòl  
 ámmá=rò ñàhílà Ø-j-jén ní kùnfǽòl  
 people=DAT millet 3.OBJ-3-give and compassion  
 sómmà gòròsò  
 sòn=mà Ø-j-kòròsò  
 3S.POSS=DET 3.OBJ-3-show  
 'He gave millet to people and (thus) showed his compassion.'  
 'Il a montré sa pitié en donnant du mil aux gens.'
- (641) kòldǽà nírà kòṅkòllír ní bór  
 kòlfǽ-a ní-rà kòṅkòl-Ø-n-r ní Ø-bó-r  
 peanut-P 1S.POSS-P peel-3.OBJ-LV-1 and 3.OBJ-eat-1  
 'I peeled my peanuts and (then) ate them.'  
 'J'ai decortiqué mes arachides pour les manger.'
- (642) kùrùkùrùnír ní jáár  
 kùrùkùrù-n-r ní já-r-r  
 retreat-lv-1 and run-1  
 'I retreated and ran away.'  
 'J'ai reculé pour fuir.'
- (643) àddí fǽónír ní dígánò  
 àddí fǽó-n-r ní d-tígánò  
 a.little rest-LV-1 and 1-walk  
 'I rested for a little while, then walked (on).'  
 'Je me suis reposé un peu et continué.'

- (644) tíí bór ní kéré nírò lámìr  
 tíí Ø-bó-r ní kéré nír=ò Ø-lám-r  
 food 3.OBJ-eat-1 and hand 1S.POSS=DET 3.OBJ-wash-1  
 'I ate (my) food and (then) washed my hand.'  
 'J'ai mangé et j'ai léché ma main.'
- (645) ìní tírá kìsìṅàré táṅḁ ní  
 ìní tírá Ø-kís-m-gí-ré téi-m=(g)ḁ ní  
 thing INDF 3.OBJ-do-2-IPFV-ADJZ 3.OBJ-have-2=CONTG and  
 kìsìṅì  
 Ø-kís-m-gí  
 3.OBJ-do-2-IPFV  
 'If you have something to do, then you do it.'  
 'Si tu as quelque chose à faire tu la fais.'
- (646) ǰàì nóm ní ǰàáṅì  
 ǰàì nóm ní ǰár-m-gí  
 tea 2S.POSS and 3.OBJ-drink-2-IPFV  
 'You also drink your tea.'  
 'Tu bois aussi ton thé.'
- (647) ábbà sómmà òrózà filíṅì  
 ábbà sòn=mà òrózì-a filí-Ø-j-n-gí  
 father 3S.POSS=DEF animal-P shepherd-3.OBJ-3-LV-IPFV  
 mèré díídír  
 mèré díídír  
 3S shepherd  
 'His father cares for (domesticated) animals; he (is) a shepherd.'  
 'Son père paît les animaux, il est berger.'
- (648) mèré izé tírá àrìí gòinné bèí  
 mèré izé tírá àrìí gó-Ø-j-n-ré Ø-bé(g)  
 3S day one woman have-3.OBJ-3-LV-ADJZ 3-be.not  
 mèré dílí  
 mèré dílí  
 3S bachelor  
 'He never had a wife; he (is) a bachelor.'  
 'Il ne s'est jamais marié, il est célibataire.'

- (649) àǫ ài méré dóktíré dǫ́kùr jèjènní  
 àǫ ài méré dóktí-ré dǫ́kùr jèjé-j-n-ní  
 man this 3S be.silent-ADJZ never converse-3-LV-NEG

‘This man, he (is) silent; he never (just) talks.’

‘Cet homme est silencieux, il ne cause jamais.’

- (650) àrí ǎí sómmà násò méré dùwí  
 àrí ǎí sòn=mà násò méré dùwí  
 woman husband 3S.POSS=DET 3-die 3S widow

‘(This) woman, her husband died; she (is) a widow.’

‘Le mari de cette femme est mort, elle est veuve.’

- (651) èré kíǐ kizénò sóró sòn  
 èré kíǐ kizén=ò sóró sòn  
 natron belly maladie=GEN.S remedy 3S.POSS

‘Natron (is) the remedy of bellyache.’

[lit. ‘Natron, of bellyache, (is) the remedy of it.’]

‘Le natron est un médicament contre le mal de ventre.’

- (652) kóró òrdǫ́l ní kʷǵà ní  
 kóró òrdǫ́l ní kʷǵà ní  
 rat crafty and curious and

‘The rat is both crafty and curious.’

‘Le souris est et malin et curieux.’

- (653) bòsámà túrúzí dànní ní bérì ní  
 bòsàó=mà túrúzí Ø-j-téi-ní ní bérì ní  
 ground-DEF equality 3.OBJ-3-have-NEG and empty and

‘The ground didn’t have levelness (?) and (was) empty.’

‘La terre était informe et vide.’

- (654) ábbà nómmà bigídí  
 ábbà nóm=mà bigídí  
 father 2S.POSS=DET old

‘Your father (is) old.’

‘Ton père est vieux.’

- (655) àrí ái bórò àǵǵí  
 àrí ái bórò àǵǵí  
 woman this very old.F

'This woman (is) very old.'

'Cette femme est très vieille.'

- (656) ginnárò      àddíí      bèí  
 ginná=rò      àddíí      Ø-bé(g)  
 all=DAT      small      3-be.not  
 'Among all (of them) there is no small one/none smaller.'  
 'Parmi tous il n'y a pas de plus petit.'

- (657) àgàfór      àì      bórò      dòdó  
 àgàfór      àì      bórò      dòdó  
 carcass      this      very      smelly  
 'This carcass (is) very smelly.'  
 'Ce carcasse est très pourri.'

- (658) àú      àì      wòǿí      ágár      zèntígì  
 àú      àì      wòǿí      ágár      Ø-j-zèntó-gì  
 man      this      ill      neck      3.OBJ-3-hurt-IPFV  
 'This man (is) unwell; (his) neck hurts.'  
 'Cet homme est malade, il a mal à la nuque.'

- (659) àgír      sómmà      ílí      dàgó  
 àgír      sòn=mà      ílí      Ø-j-dák  
 donkey      3S.POSS=DET      grass      3.OBJ-3-want  
 'His donkey wants grass.'  
 'Son âne veut de la paille.'

- (660) àgó      èskírò      òzùm      gòíṅì  
 àgó      èskí=rò      òzùm      gó-Ø-j-n-gì  
 then      new=DAT      fasting      take-3.OBJ-3-LV-IPFV  
 'Then he will fast anew.' / 'Then he will begin to fast again.'  
 'Ensuite il vas prendre le jeûne de nouveau.'

- (661) àlámà      sómmà      tòfá  
 àlámà      sòn=mà      t-fá-Ø  
 traits      3S.POSS=DET      1S.OBJ-say.IMV-2  
 'Tell (me)/describe his traits.'  
 'Décris ses traits caractéristiques.'

- (662) mèré àmànné nír  
 mèré àmán-ré nír  
 3S trust-ADJZ 1S.POSS  
 'He/she is a confidant to me/of mine.'  
 'Il est un confident à moi.'
- (663) ámmá báà ná írdò  
 ámmá bó-a=a ná Ø-ír-t  
 people big-P=DET also 3-come-P  
 'The big/great/important people also came.'  
 'Les gens importants sont aussi venus.'
- (664) ànfǽó sómmà sóró sómmà hàsán  
 ànfǽó sòn=mà sóró sòn=mà hàsán  
 twin 3S.POSS=DET name 3S.POSS=DET (name)  
 'His twin, his name (is) Hassan.'  
 'Son jumeau s'appelle Hassane.'
- (665) àú àì áṅkàl dànní  
 àú àì áṅkàl Ø-j-téi-ní  
 man this wisdom 3.OBJ-3-have-NEG  
 'This man doesn't have (any) wisdom/wit.'  
 'Cet homme n'a pas d'esprit.'
- (666) àúmà bórò ànòkí  
 àú=mà bórò ànòk-Ø-j  
 man=DET much endure-3.OBJ-3  
 'The/this man has endured much/too much.'  
 'Cet homme a trop duré.'
- (667) jíní àṅéllíṅà fǽóssò  
 jíní àṅéllí=ṅà fǽóssò  
 meat porcupine=GEN.S good  
 '(The) meat of (the) porcupine (is) good.'  
 'La viande du porc-épic est bonne.'
- (668) òrká nǎǎ òrɔ́ áró bèí  
 òrkɔ́-a nóm-a òrɔ́ áró Ø-bé(g)  
 goat-P 2S.POSS-P in male.goat 3-be.not



'There is no male goat amongst your goats.'

'Il n'y a pas de bouc dans tes chèvres.'

- (669) jégè àì àsár móntó dànní  
 jégè àì àsár móntó Ø-j-téi-ní  
 house this expense much 3.OBJ-3-have-NEG  
 'This house doesn't have much expense.' ('This house didn't cost much?')  
 'Cette maison n'a pas beaucoup de perte.'

- (670) àsínrò kàsàrà gàrtígì  
 àsín=rò kàsàr-a gàrt-gì  
 awl=DAT braid-P fix.up-IPFV  
 'We braid braids with an awl.'  
 'On fait de la tresse à l'aide du poinçon.'

- (671) áskí sómmà ówón  
 áskí sòn=mà ówón  
 horse 3S.POSS=DET fast  
 'His horse (is) fast.'  
 'Son cheval est rapide.'

- (672) èskírù mèréṅà ásónìr  
 èskí=rù mèré=ṅà ásó-Ø-n-r  
 new=DAT 3S=ACC recognize-3.OBJ-LV-1  
 'I just (now) recognized him.'  
 'C'est maintenant que je l'ai reconnu.'

- (673) àǎ jàòò dàgó  
 àǎ jàó=ò Ø-j-dák  
 skin price=GEN.S 3.OBJ-3-want  
 'He wants a skin for sale.'  
 'Il veut une peau à vendre.'

- (674) àú àì bórò àǎrè  
 àú àì bórò àǎ-ré  
 man this very luck-ADJZ  
 'This man (is) very lucky.'  
 'Cet homme est très chanceux.'

- (675) àǫ àì bórò jéskò  
 man this very black  
 'This man is very black.'  
 'Cet homme est très noir.'
- (676) kúrǵá jégààrò sàgá àwá mùkkìí  
 kúrǵí-a jégè=à=rò sàgá àwá j-múg-t-í  
 child-P house=DET=DAT behind game 3-dance-P-PROG  
 ǵǵkkí  
 Ø-ǵǵg-t  
 3-be-P  
 'The children are playing behind the house.'  
 'Les enfants jouent derrière la maison.'
- (677) sásá sómǵà àwàíró dómǵò  
 sásá són=mà àwàí=rò j-tóm-t  
 straw.hut 3S.POSS=DET reed=DAT 3-build-P  
 'They built his straw hut with reeds.'  
 'On a construit sa case avec des roseaux.'
- (678) ǵǵlí bára àdàí  
 rainy.season after dry.season  
 'After rainy season (comes) dry season.'  
 'Après l'hivernage vient la saison sèche.'
- (679) wòdó àwór kégé  
 bitter wild.melon like  
 'bitter like the wild melon'  
 'amer comme du melon sauvage'
- (680) áwóríí sómǵà méré=rò dógó fái ǵǵí  
 áwóríí són=mà méré=rò dógó fá-j Ø-ǵǵí(g)  
 son.in.law 3S.POSS=DET 3S=DAT far live-3 3-be  
 'Her son-in-law lives far away from her.'  
 'Son gendre habite loin de lui.'
- (681) àǵí nómmà gǵré  
 àǵí nóm=mà gǵré  
 camel 2S.POSS=DET thirsty  
 'Your camel (is) thirsty.'  
 'Ton chameau a soif.'

- (682) àzá                      sómmà                      fádìr  
           àzá                      sòn=mà                      Ø-fár-r  
           commission    3S.POSS=DET    3-speak-1  
           'I told (him) his commission.'  
           'J'ai dit sa commission.'
- (683) \*    àzá                      sómmà                      nór  
           àzá                      sòn=mà                      Ø-n-r  
           commission    3S.POSS=DET    3-say-1  
           'I told (him) his commission.'  
           'J'ai dit sa commission.'
- (684) èlí                      àzànír                                      kàsógò                      dúrtù  
           èlí                      àzà-Ø-n-r                                      kàsógò                      d-tér-t  
           (name)    accompany-3.OBJ-LV-1    market    1-go-P  
           'I accompanied Eli; we went (to) market.'  
           'J'ai accompagné Eli au marché.'
- (685) kʷói      àì      àzèŋké      áŋkàl                      nágò  
           kʷói      àì      àzèŋké      áŋkàl                      Ø-nágò-Ø  
           place    this    slope    attention    3.OBJ-put.IMV-2  
           'This place (is) a slope; pay attention.'  
           'Il y a une pente ici; fais attention.'
- (686) ɲégí                      òíró      ázzá                                      bóró      ɲíkkí  
           ɲégí                      òíró      ázzá                                      bóró      Ø-ɲíŋ-t  
           (place name)    in    (people name)    much    3-be-P  
           'In N'guigmi, there are many Azza (people).'  
           'A N'guigmi il y a beaucoup d'artisans.'
- (687) jìgé      àì      bá                                      fòú  
           well    this    (unit of depth)    five  
           'This well (is) five "ba" (deep).'  
           'Le profondeur de ce puits est 5 "ba".'  
           (This is an old unit of measure that equals finger tips  
           to finger tips when arms spread wide open.)
- (688) bàbál      àì      béli  
           court    this    proper  
           'This court (is) proper.'  
           'Cette cour est propre.'

- (689) mǐí èkké àì=ɲà bàfó  
 fruit tree this=GEN.S ripe  
 'The fruit of this tree (is) ripe.'  
 'Le fruit de cet arbre est mûr.'
- (690) tíí sómmà bàfíré  
 tíí sòn=mà bàfó-ré  
 food 3S.POSS=DET ready-ADJZ  
 'His meal is ready.'  
 'Son repas est préparé.'
- (691) báhàr ɲùllí sómmà dóktíré  
 báhàr ɲùllí sòn=mà dóktí-ré  
 ocean surface 3S.POSS=DET calm  
 'The ocean, its surface (is) calm/still/silent.'  
 'La surface de l'océan est calme.'
- (692) ìní fáttò ɣìnná bàlàɲír  
 ìní fár-t=ò ɣìnná balak-Ø-n-r  
 thing say-P=DET all propagate-3.OBJ-LV-1  
 'I propagated/spread around everything they said.'  
 'J'ai propagé tout ce qu'ils ont dit.'
- (693) fíkí béلكé bálík kólò músàɲà dèrìgì  
 fíkí béلكé bálík kólò músà=ɲà d-tér-gì  
 tomorrow morning maybe field (name)=GEN.S 1-go-IPFV  
 'Tomorrow morning, perhaps I'll go to Musa's field.'  
 'Demain matin, peut-être j'irais au champ de Musa.'
- (694) àgìlí nírò bànànír  
 àgìlí nír=ò bana-Ø-n-r  
 shirt 1S.POSS=DET ruin-3.OBJ-LV-1  
 'I ruined my shirt.'  
 'J'ai gâté ma chemise.'
- (695) wúrè àìì bànná bó gísò  
 wúrè àì=ì bànná bó Ø-j-kís  
 thief this=ERG damage big 3.OBJ-3-do  
 'This thief did a lot of damage.'  
 'Ce voleur a fait un grand dégât.'

- (696) jòm súúdù báràrò dùrtígì  
 jòm súúdù bárà=rò d-tér-t-gì  
 day saturday hunt=DAT 1-go-P-IPFV  
 ‘On Saturday, we will go hunting.’  
 ‘Nous irons à la chasse le samedi.’
- (697) àrí sómmà sòptǽmà d̥ʒíkànò  
 àrí sòn=mà sòpt-j=mà d̥ʒíkànò  
 wife 3S.POSS=DET give.birth-3=DET because  
 mèréǹà bàrkànír  
 méré=ǹà barka-Ø-n-r  
 3S=ACC congratulate-3.OBJ-LV-1  
 ‘I congratulated him, because his wife gave birth.’  
 ‘Je l’ai béni parce que sa femme a accouché.’
- (698) kòlú àì básàl dànní  
 kòlú àì básàl Ø-j-téi-ní  
 sauce this onion 3.OBJ-3-have-NEG  
 ‘This sauce doesn’t have any onions (in it).’  
 ‘Cette sauce n’a pas d’oignon.’
- (699) bátálà déi  
 bátál-a Ø-j-téi  
 spot-P 3.OBJ-3-have  
 ‘It is mottled/spotted.’  
 ‘Il est tacheté.’
- (700) ɲílí tìgìsòò bébélta bórò ǽíkkí  
 ɲílí Ø-tìgìsò-ó bébél-tí-a bórò Ø-ǽí-g-t  
 rainy.season 3-happen-CTNG beetle.type-P much 3-be-P  
 ‘When it’s rainy season, there are lots of “bebelta” (beetles).’  
 ‘Pendant l’hivernage il y a beaucoup de coléoptère.’
- (701) bèbérì àì kóór  
 sharp.blade this sharp  
 ‘This blade is sharp.’  
 ‘Cette lame est tranchante.’
- (702) bèdíǵèrò állàì sáǽmàjè bòsámàjè  
 bèdíǵè=rò állà=i sáǽ=mà=jè bòsàó=mà=jè  
 beginning=DAT God=ERG sky=DET=and ground=DET=and

hèllikí

hèllik-Ø-j

create-3.OBJ-3

‘In the beginning, God created the sky and the ground.’

‘Au commencement Dieu a créé les cieux et la terre.’

- (703) kírí àì bèlebéle  
dog this multicolored  
‘This dog (is) multicolored.’  
‘Ce chien est multicolore.’

- (704) tásó dóró sómmà bórò béli  
tásó dóró sòn=mà bórò béli  
cup interior 3S.POSS=DET very clean  
‘The inside of the cup (is) very clean.’  
‘L’interieur de la tasse est très propre.’

- (705) mí kòrí ná àwá múùgì bèllé mí  
mí kòrí ná àwá j-mú(g)ù-gì bèllé mí  
son another even game 3-dance-IPFV all.the more son  
gaŋamao  
gaŋama=ò  
griot=GEN.S  
‘The son of another (knows how to) dance—all the more the son of a griot.’  
‘Le fils d’un autre connaît danser, à plus forte raison l’enfant d’un griot.’

- (706) ñàhílà kólò sómmàa bérè kìrìní  
ñàhílà kólò sòn=mà=à bérè j-kìrî-ní  
millet field 3S.POSS=DET=GEN.P hoeing 3-suffice-NEG  
‘The millet of his field is not ready for hoeing.’  
‘Le mil de son champs n’a pas atteint le stade de labour.’

- (707) ámmá ginná bérèrò túrtù  
ámmá ginná bérè=rò Ø-tér-t  
people all ploughing=DAT 3-go-P  
‘All the people went to plough.’  
‘Tout les gens sont partis labourer.’

- (708) bèrègé àì bòsá dànní  
 bèrègé àì bòsò-a Ø-j-téi-ní  
 river this fish-P 3.OBJ-3-have-NEG  
 'This river doesn't have (any) fish.'  
 'Cette rivière n'a pas de poissons.'
- (709) bèrén sómmà zòntó  
 bèrén sòn=mà zòntó  
 counting 3S.POSS=DET wrong  
 'His counting is wrong.'  
 'Son compte est mauvais.'
- (710) òòskí górsà níràà ginná bèrènnír  
 òòskí górsò-a nír-a=a ginná bèrén-Ø-n-r  
 yesterday money-P 1S.POSS-P=DET all count-3.OBJ-LV-1  
 'Yesterday, I counted all my money.'  
 'Hier j'ai compté tout mon argent.'
- (711) sèì bèrké  
 until later  
 'Until later.'  
 'A bientôt.'
- (712) òwór nómmà àllà làó bés jèníḡì  
 òwór nóm=mà àllà làó bés Ø-jén-m-gì  
 heart 2S.POSS=DET God toward only 3.OBJ-give-2-1PFV  
 'You will give your heart only to God.'  
 'Tu vas orienter ton coeur uniquement vers Dieu.'
- (713) bí kiddé  
 weather hot  
 'The weather (is) hot.'  
 'Il fait chaud.'
- (714) bìgìdí kàsógò tэрò  
 bìgìdí kàsógò Ø-tér  
 old.man market 3-go  
 'The old man went to the market.'  
 'Le vieux est parti au marché.'

- (715)    bígìzɛ                      sóm̩mà                      bó̩rò    bò̩ròwɛ  
           bígìzɛ                      són=mà                      bó̩rò    bò̩ròwɛ  
           father.in.law    3S.POSS=DET    very    rich  
           ‘His father-in-law (is) very rich.’  
           ‘Son beau-père est très riche.’
- (716)    wafɪl    àì    bilíli    fʃóssò    wáògì  
           wafɪl    àì    bilíli    fʃóssò    Ø-j-báb-gì  
           Arab    this    flute    well    3.OBJ-3-hit-IPFV  
           ‘This Arab plays the flute well.’  
           ‘Cet arabe joue bien la flûte.’
- (717)    bìrí    sóm̩mà                      d͡ʒàkí  
           bìrí    són=mà                      d͡ʒák-Ø-j  
           face    3S.POSS=DET    close-3.OBJ-3  
           ‘He closed his face.’ / ‘(He covered his face?)’  
           ‘Il a fermé son visage.’
- (718)    kàgá                      sóm̩mà                      gô                      bírí                      tìgànìní  
           kàgá                      són=mà                      gô                      bírí                      Ø-tígànò-ní  
           grandmother    3S.POSS=DET    unable.to    by.foot    3-walk-NEG  
           ‘His grandmother can’t walk by foot.’  
           ‘Sa grandmère ne peut pas marcher à pied.’
- (719)    tìní    àì    bìrí  
           thing    this    cheap  
           ‘This thing (is) cheap.’  
           ‘Cet objet est bon marché.’
- (720)    górsà                      sónà                      biànír  
           górsò-a                      són-à                      bia-Ø-n-r  
           money-P    3S.POSS-P    pay-3.OBJ-LV-1  
           ‘I paid (him) his money.’  
           ‘J’ai payé son argent.’
- (721)    nímà                      d̩író    bìzzí    bèí  
           n̩íí=mà                      d̩író    bìzzí    Ø-bé(g)  
           town=DET    in    poverty    3-be.not  
           ‘In the town there is no poverty.’  
           ‘Il n’y avait pas de pauvreté dans la ville.’



- (722) àddí bòdó  
a.little better  
'(It's going) a little better.'  
'Ça va un peu mieux.'
- (723) bòfú àì d̀̀ŕ ̀̀h́l̀ ̀̀k̀k̀í  
bòfú àì d̀̀ŕ ̀̀h́l̀ ̀̀ Ø-̀̀f́g-t  
sack this in millet 3-be-P  
'In this sack is millet.'  
'Il y a du mil dans ce sac.'
- (724) bòmús t̀̀ŕn górsà d̀̀gír̀m  
bòmús t̀̀ŕn górsò-a d̀̀gír̀m  
watermelon one money-P twenty  
'One watermelon (is worth) twenty (pieces of) money.'  
'Un pastèque coûte cent francs.'
- (725) jíní b̀̀s̀=̀̀h́ ̀̀f́óssò  
meat fish=GEN.S good  
'The meat of fish (is) good.'  
'La viande du poisson est bonne.'
- (726) b̀̀t́ nóm=mà j̀̀sk̀ò  
cat 2S.POSS=DET black  
'Your cat (is) black.'  
'Ton chat est noir.'
- (727) ̀̀h́l̀ ginná bùú  
millet all flowering  
'All the millet (is) flowering.'  
'Tout le mil est fleuri.'
- (728) b̀̀l̀m já̀̀̀ dágò̀̀̀  
b̀̀l̀m Ø-jé-m-gì j-dák-m=(g)ò  
porridge 3.OBJ-drink-2-IPFV 3-want-2-CTNG  
'You drink porridge, if you want.'  
'Si tu veux tu bois de la bouille.'
- (729) òllòúmà ginná b̀̀ráí  
òllòú=mà ginná b̀̀rá-Ø-j  
banco=DET all knead-3.OBJ-3

'He mixed/kneaded all the banco.'

'Il a pétri tout le banco.'

- (730) bòró èdìnfínné  
 bòró edin-j-n-ré  
 hot.season approach-3-LV-ADJZ  
 'Hot season (is) near.'  
 'La saison chaude est proche.'

- (731) búrú dùrúsù lôn  
 búrú dùrúsù Ø-lôn-Ø  
 hole long 3.OBJ-dig.IMV-2  
 'Dig a long/deep hole.'  
 'Creuse un long trou.'

- (732) állàṅà bòrsànír  
 állà=ṅà bòrsà-Ø-n-r  
 God=ACC trust-3.OBJ-LV-1  
 'I trust in God.'  
 'Je me suis confié à Dieu.'

- (733) bíní ṅàá bòrsàré  
 bíní ṅàá bòrsà-ré  
 today who trust-ADJZ  
 'Today, who is trustworthy?'  
 'Aujourd'hui qui est confiant?'

- (734) kórtí àì òrò dázà bórsó fíkkí  
 kórtí àì òrò dázì-a bórsó Ø-fíṅ-g-t  
 area this in (name) only 3-be-P  
 'In this area, there are only Daza (people).'  
 'Dans ce quartier il y a uniquement les Daza.'

- (735) bíní òwón bóró fíí  
 bíní òwón bóró Ø-fí(g)  
 today wind much 3-be  
 'Today, there's a lot of wind.'  
 'Aujourd'hui il vente beaucoup.'

- (736)    bùrú        bó    gìssó  
            bùrú        bó    Ø-j-kís-t  
            shame    big    3.OBJ-3-do-P  
            ‘They did something very shameful.’  
            ‘Ils ont fait une grande honte.’
- (737)    jégàà                òrò    bòsàó    bèí  
            jégè=à        òrò    bòsàó    Ø-bé(g)  
            house=DET    in    dirt        3-be.not-P  
            ‘There’s no dirt/sand in the house.’  
            ‘Il n’y a pas de sable dans la maison.’
- (738)    jíní        àì        bùssíré  
            jíní        àì        bùssí-ré  
            meat    this    rot-ADJZ  
            ‘This meat (is) rotten.’  
            ‘Cette viande est pourrie.’
- (739)    fǎ        dáá        èddér    déì  
            fǎ        dáá        èddér    Ø-j-téì  
            nose    on        snot        3.OBJ-3-have  
            ‘He has snot on his nose.’  
            ‘Il a de la morve sur le nez.’
- (740)    tòmatòm    fǎfǎptǎnné  
            tòmatòm    fǎfǎpt-j-n-ré  
            tomato        become.bitter-3-LV-ADJZ  
            ‘(This) tomato (has become) bitter.’  
            ‘Ce tomate est devenu aigre.’
- (741)    lèmin        àì        fǎfǎó  
            lemon    this    sour  
            ‘This lemon (is) sour.’  
            ‘Ce citron est aigre.’
- (742)    fíkí                fǎfóná        bó    fǐí  
            fíkí                fǎfóná        bó    Ø-fǐ(g)  
            tomorrow    meeting    big    3-be  
            ‘Tomorrow, there’s going to be a big meeting.’  
            ‘Demain il y aura une grande réunion.’

- (743) jíní fjàgàmmír  
 jíní fjàgàp-Ø-n-r  
 meat chew-3.OBJ-LV-1  
 'I chewed meat.'  
 'J'ai mâché de la viande.'
- (744) wètírùrù fjaŋir  
 wètír=ù=rù fjàk-n-r  
 vehicle=DET=DAT descend-LV-1  
 'I got down out of the vehicle.'  
 'Je suis descendu de la voiture.'
- (745) ámmá ginná fjàllàmmír  
 ámmá ginná fjàllàp-Ø-n-r  
 people all search.through-3.OBJ-LV-1  
 'I searched through all the people.'  
 'J'ai fouillé tout le monde.'
- (746) òsònné àì fjànnàrá fjuú déi  
 òsònné àì fjànnàrá fjuú Ø-j-téi  
 bride this woman.advisor.for.bride two 3.OBJ-3-have  
 'This bride has two women advisors.'  
 'Cette jeune mariée a deux conseillères.'
- (747) tíná ginná fjàmmír  
 tìní-a ginná fjàp-Ø-n-r  
 thing-P all 1S.PFV.gather  
 'I gathered all (my/the) things.'  
 'J'ai ramassé tous les effets.'
- (748) nímà ginná fjàpfjintò  
 níí=mà ginná fjàp-Ø-j-n-t  
 village=DET all search-3.OBJ-3-LV-P  
 'They searched all the village.'  
 'Ils ont fouillé dans toute la ville.'
- (749) bìkí sómmàrò fjàjà gòní  
 bìkí sòn=mà=rò fjàjà gó-Ø-j-ní  
 party 3S.POSS=DET=DAT gift take-3.OBJ-3-NEG

'He didn't get any gifts at his party.'  
'Il ne prend pas de cadeau à son biki.'

- (750) fɛ́ǎǎ              sómmà              móntó  
fɛ́ǎǎ              són=mà              móntó  
deception    3S.POSS=DET    a.lot  
'He deceives a lot.' [lit. 'His deception (is) a lot.']  
'Il trompe trop.'

- (751) mòrá    ginná    fɛ́ǎǎnír  
mòrá    ginná    fɛ́ǎǎ-Ø-n-r  
3P    all    deceive-3.OBJ-LV-1  
'I deceived them all.'  
'Je les ai tous trompé.'

- (752) fɛ́kké    sómmà              fùínné  
fɛ́kké    són=mà              fú-j-n-ré  
cheek    3S.POSS=DET    swell-3-LV-ADJZ  
'His cheek/side of face (is) swollen.'  
'Sa joue est gonflée.'

- (753) fɛ́í              ðíró    ínní    táí  
fɛ́í              ðíró    ínní    Ø-téi-m  
mouth    in    what    3.OBJ-have-2  
'What do you have in (your) mouth?'  
'Qu'est-ce que tu as dans la bouche?'

- (754) fɛ́árò              fɛ́íǵéré              góróò  
fɛ́á=rò              fɛ́íǵéré              j-kóró  
nose=DAT    nose.bleed    3-appear  
'He bled from his nose.'  
'Il a saigné par le nez.'

- (755) lèminù              fɛ́íllír                              ìí              sómmà  
lèmin=ù              fɛ́íll-Ø-n-r                              ìí              són=mà  
lemon=DET    squeeze-3.OBJ-LV-1              water    3S.POSS=DET  
tídír  
Ø-tír-r  
3.OBJ-remove-1  
'I squeezed the lemon (to) remove its juice.'  
'J'ai pressé le citron pour enlever son jus.'

- (756) ɸĩnnè jégààṇà kòó  
 ɸĩnnè jégè=à=ṇà kòó  
 door house=DEF=GEN.S where  
 ‘Where’s the door of the house?’  
 ‘Où est la porte de la maison?’
- (757) ɸĩṇàfó Ø-bú-r  
 rice 3.OBJ-eat-1  
 ‘I ate rice.’  
 ‘J’ai mangé du riz.’
- (758) ɸĩré sómmàrò sòs  
 ɸĩré sòn=mà=rò sòs-Ø  
 behind 3S.POSS=DET=DAT sit.IMV-2  
 ‘Sit behind him.’  
 ‘Reste derrière lui.’
- (759) ɸĩrí tìnìmmí nyàṇírgì  
 ɸĩrí Ø-tín-m-ní ɲák-n-r-gì  
 shout 3.OBJ-put-2-NEG sleep-LV-1-IPFV  
 ‘Don’t shout; I’m sleeping.’  
 ‘Ne cris pas, je veux dormir.’
- (760) ɸĩtìí gíní sómmà màró  
 ɸĩtìí gíní sòn=mà màró  
 bird.type color 3S.POSS=DET red  
 ‘(The) fire finch, its color is red.’  
 ‘L’oiseau citii est rouge.’
- (761) ɸĩrí sómmà màhàná dànní  
 ɸĩrí sòn=mà màhàná Ø-j-téi-ní  
 existence 3S.POSS=DET meaning 3.OBJ-3-have-NEG  
 ‘His existence doesn’t have meaning.’  
 ‘Son existence n’a pas de sens.’
- (762) éli jír ɸòfírí dá  
 éli jír-Ø ɸòfírí Ø-dá-Ø  
 (name) come.IMV-2 bird 3.OBJ-take.IMV-2  
 ‘Eli, come, take a bird.’  
 ‘Eli, tiens un oiseau.’

- (763) ɸʒkàlɾò tíí bóɾgì  
 ɸʒkàl=rò tíí Ø-bó-r-gì  
 spoon=DAT food 3.OBJ-eat-1-IPFV  
 'I am eating (my) food with a spoon.'  
 'Je mange le repas avec une cuillère.'
- (764) wònó ðàɾó ɸʒóɾ t̩ɾɕn bèi  
 wònó ðàɾó ɸʒóɾ t̩ɾɕn Ø-bé(g)  
 bush in rabbit one 3-be.not  
 'There's not one rabbit in the bush.'  
 'Il n'y a aucun lièvre dans la brousse.'
- (765) àgilá ɸʒóɾɸʒintò  
 àgilí-a ɸʒóɾ-Ø-j-n-t  
 shirt-P dry-3.OBJ-3-LV-P  
 'They dried their shirts.'  
 'Ils ont séché des vêtements.'
- (766) èkké ɸʒɾdò  
 wood dry  
 'The wood (is) dry.'  
 'Le bois est sec.'
- (767) kòlú sómmà ɸʒttó dànní  
 kòlú sòn=mà ɸʒttó Ø-j-téi-ní  
 sauce 3S.POSS=DET piment 3.OBJ-3-have-NEG  
 'His sauce doesn't have piment.'  
 'Sa sauce n'a pas de piment.'
- (768) ɸʒɔ́ gàlàgàlá=rò zòntó  
 venomous.lizard lizard=DAT dangerous  
 'The "cowu" is more dangerous than the common lizard.'  
 'Le « cowu » est plus dangereux que le lézard de la ville.'
- (769) ábbà sómmà ɸʒzó  
 ábbà sòn=mà ɸʒzó  
 father 3S.POSS=DET old.M  
 'His father (is) old.'  
 'Son papa est vieux.'

- (770) jégè sómàà fǽúbú náàrò fǽíí  
 jégè són=mà fǽúbú náà=rò Ø-fǽí(g)  
 house 3S.POSS=DET direction which=DAT 3-be  
 'His house, which direction is it?'  
 'Sa maison est vers où?'
- (771) ñííí tìgìsòò fǽógó fǽíí  
 ñííí tìgìsò=ò fǽógó Ø-fǽí(g)  
 rainy.season 3-happen=CTNG cheese 3-be  
 'When it's rainy season, there's cheese.'  
 'Il y a du fromage pendant l'hivernage.'
- (772) níàà fǽúk<sup>wí</sup> dérò  
 níí=mà fǽúk<sup>wí</sup> d-tér  
 village=DET center 1-go  
 'I went (to) the center of the village.'  
 'Je suis parti en centre ville.'
- (773) sóró sómàà fǽónnìr  
 sóró són=mà fǽón-Ø-n-r  
 name 3S.POSS=DET erase-3.OBJ-LV-1  
 'I erased his name.'  
 'J'ai effacé son nom.'
- (774) èkké àì fǽònòò déì  
 èkké àì fǽònòò Ø-j-téì  
 tree this termite 3.OBJ-3-have  
 'This tree has termites.'  
 'Cet arbre a des termites.'
- (775) fǽúrò àì bórò tòssó  
 fǽúrò àì bórò tòssó  
 work this very difficult  
 'This work (is) very hard.'  
 'Ce travail est très difficile.'
- (776) fǽúrófù sómàà òíró òíí àì bèì  
 fǽúrófù són=mà òíró òíí àì Ø-bé(g)  
 book 3S.POSS=DET in thing this 3-be.not  
 'In his book, there is not this thing.'  
 'Il n'y a pas ça dans son livre.'



- (777) jégè sómmà bórò fǹúróú  
 jégè són=mà bórò fǹúróú  
 house 3S.POSS=DET very large  
 'His house (is) very large.'  
 'Sa maison est très vaste.'
- (778) ábbà sómmà wètír fǹòjǹì  
 ábbà són=mà wètír fǹóz-Ø-j-n-gì  
 father 3S.POSS=DET vehicle drive-3.OBJ-3-LV-IPFV  
 'His father is driving the vehicle.'  
 'Son père conduit une voiture.'
- (779) óṅkò nímà bórò fǹóssò  
 óṅkò níí=mà bórò fǹóssò  
 before village=DET very good  
 'Before, the village (was) very nice.'  
 'Avant la ville était très bonne.'
- (780) màrá fǹúú kʷî gódù  
 màrá fǹúú kʷî Ø-gó-t  
 3P two between 3-fight-P  
 'They two fought between (themselves).'  
 'Les deux se sont bagarrés entre eux.'
- (781) èkké àì bórò dábbà  
 tree this very hard  
 'This tree (is) very hard.'  
 'Cet arbre est très dur.'
- (782) wúrè àìṅà dàǹrò tòíntò  
 wúrè áì=ṅà dàǹí=rò tó-Ø-j-n-t  
 thief this=ACC hobble=DAT tie-3.OBJ-3-LV-P  
 'They tied up this thief with a hobble.'  
 'On a attaché ce voleur avec une entrave.'
- (783) ṅégí òìró dázà bórò fǹíkkí  
 ṅégí òìró dázì-a bórò Ø-fǹíḡ-t  
 (place) in (ethnicity) many 3-be-P  
 'In N'guigmi, there are many Daza (people).'  
 'Il y a beaucoup de toubous à N'guigmi.'

- (784) dèfí sómmà lán bórò fǵùròí  
 dèfí sòn=mà Ø-lán-Ø bórò fǵùrò-j  
 sweat 3S.POSS=DET 3.OBJ-look.at-2 much work-3  
 ‘Look at his sweat; he’s worked a lot.’  
 ‘Regarde sa sueur, il a beaucoup travaillé.’

## Section 2 Ancamiya cûwaã [ànǵǵámíà fǵúáà] The Two Twins

- (785) jégè bó tǵrá ðíró ámmá ní mòrá ànǵjè  
 jégè bó tǵrá ðíró ámmá ní mòrá ànǵí=jè  
 house big INDF in people and 3P woman=and  
 ànǵjè fǵíkkí  
 ànǵí=jè Ø-fǵí-g-t  
 man=and 3-be-P  
 ‘There was a large family with a wife and husband.’
- (786) mòrá hàlás jálà sóntá ànǵǵámíà fǵúú dédí  
 mòrá hàlás jáli-a sóntó-a ànǵǵáó-a fǵúú Ø-j-téi-t  
 3P well! child-P 3P.POSS-P twin-P two 3.OBJ-3-have-P  
 ‘Well, they had two children—twins.’
- (787) àgó ànǵǵámíà fǵúú dédí-rù  
 àgó ànǵǵáó-a fǵúú Ø-j-téi-t=rù  
 now twin-P two 3.OBJ-3-have-P=DAT  
 fǵǵzó sóntóò ní mèré jèrfǵíngòò  
 fǵǵzó sóntó=ò ní mèré jért-j-n-gì=ò  
 old.man 3P.POSS=DET and 3S rise-3-LV-IPFV=CONTG  
 nòngó ná kólà bó déi kʷòí  
 nòngó ná kólò-a bó Ø-j-téi kʷòí  
 these.days also field-P big 3.OBJ-3-have place  
 kólààngà térigì  
 kólò-a=à=ngà Ø-tér-gì  
 field-P=DET=GEN.S 3-go-IPFV  
 ‘Now having two twins, their old man when he got up used to go out to his fields. He had large fields.’
- (788) àgó ájá sóntóò ní bórò fǵíí  
 àgó ájá sóntó=ò ní bó=rò Ø-fǵí(g)  
 now mother 3P.POSS=DET and home=DAT 3-be  
 ‘Their mother would stay at home.’

- (789) ànɛʃàmíà ɛʃúá ní mòrá ní jèrtɛʃíntòò fòró tìrʒn  
 ànɛʃàó-a ɛʃúú-a ní mòrá ní jért-j-n-t=ò fòró tìrʒn  
 twin-P two-P and 3P and rise-3-LV-P=CNTG cow one  
 òwí dèdí àgó fòró tégà gòròkkòré  
 òwí Ø-j-téi-t àgó fòró tégà Ø-j-kurug-t-ré  
 milk 3.OBJ-3-have-P then cow that=ACC lead.out-3-P-ADJZ  
 filiintígì  
 fili-Ø-j-n-t-gì  
 pasture-3.OBJ-3-LV-P-IPFV  
 'The twins had a milk cow and when they got up, they would take that cow  
 out and pasture it.'

- (790) àgó fòróògà filiintígàà túrtù  
 àgó fòró=ò=gà fili-Ø-j-n-t-gì=a Ø-tér-t  
 now cow=DET=ACC pasture-3.OBJ-3-LV-P-IPFV=DET 3-go-P  
 ní kàrágà òrò filiintí tìgìsòòré  
 ní kàrágà òrò fili-Ø-j-n-t-í Ø-tìgìsò=ò-ré  
 and bush in pasture-3.OBJ-3-LV-P-PROG 3-become=CNTG-ADJZ  
 hàlås sàgà írdìgì  
 hàlås sàgà Ø-ír-t-gì  
 well behind 3-come-P-IPFV  
 'As for pasturing the cow, they would leave and be out in the bush pasturing  
 then come back home.'

- (791) írdòò ɛ́í ɛ̀òkkòòré ɛ́í té ní  
 Ø-ír-t=ò ɛ́í Ø-j-jóg-t=ò-ré ɛ́í té ní  
 3-come-P=CNTG milk 3.OBJ-3-milk-P=CNTG-ADJZ milk that and  
 ɛ̀fédìgì  
 Ø-j-jé-t-gì  
 3.OBJ-3-drink-P-IPFV  
 'Once home, having milked the cow they would drink the milk.'

- (792) hàlås ábbà sóntóòjè ájá sóntóòjè  
 hàlås ábbà sóntó=ò=jè ájá sóntó=ò=jè  
 well father 3P.POSS=DET=and mother 3P.POSS=DET=and  
 màrá kɛ́ ɛ̀òrárò ɛ̀íkkí  
 màrá kɛ́ ɛ̀ó-ré=a=rò Ø-ɛ̀íg-t  
 3P with mixture-ADJZ=DET=DAT 3-be-P  
 'And so they lived together with their father and their mother.'

- (793) àgò àì kégérò fǽkkí bóssòrò jòm t'rá níí  
 àgò àì kégé=rò Ø-fǽg-t Ø-bóz-t=rò jòm t'rá níí  
 now this like=DAT 3-be-P 3-remain-P=DAT day INDF village  
 ìrdíí fǽkkí ábbà sóntóò ní bèí  
 Ø-ír-t-í Ø-fǽg-t ábbà sóntó=ò ní Ø-bé(g)  
 3-come-P-PROG 3-be-P father 3P.POSS=DET and 3-be.not  
 ájá sóntóò ní àgò bóró wǽí  
 ájá sóntó=ò ní àgò bóró wǽí  
 mother 3P.POSS=DET and then very ill  
 'So they remained there like that until one day, upon coming home, their father wasn't there and their mother was very ill.'

- (794) àgò kizén téì déìṅà kizén mètégà  
 àgò kizén té=ì Ø-j-té=ṅà kizén mèté=gà  
 now pain that=ERG 3.OBJ-3-take=REL pain 3S=ACC  
 sòògìré íí  
 Ø-j-sòò-gì-ré íí  
 3.OBJ-3-abandon-IPFV-ADJZ not  
 'Now that pain that had taken her, (that) pain wouldn't leave her.'

- (795) bóró kásár sómmà ní kiddé ní àgòní kizèí  
 bóró kásár sòn=mà ní kídídí-ré ní àgòní kizèí  
 very body 3S.POSS=DET and heat-ADJZ and again suffering  
 òrò ní bóró fǽí  
 òrò ní bóró Ø-fǽí(g)  
 in and very 3-be  
 'Her body was very hot and she was in much agony.'

- (796) àgò dáá fǽkkí bóssòrò ábbà sóntóò írí  
 àgò dáá Ø-fǽg-t Ø-bóz-t=rò ábbà sóntó=ò Ø-írí  
 then on 3-be-P 3-remain-P=DAT father 3P.POSS=DET 3-come  
 bózòré bènnérù ájá sóntóò fǽí  
 Ø-bóz-ré Ø-bé(g)-ré=rù ájá sóntó=ò fǽ-j  
 3-remain-ADJZ 3-be.not-ADJZ=DAT mother 3P.POSS=DET die-3  
 'Now while they remained caring for their mother, their father came back and then not long after their mother died.'

- (797) àgò ájá sóntóò fǽimàré kùrfíà tá  
 àgò ájá sóntó=ò fǽ-j=mà-ré kùrfí-mí-a tá  
 now mother 3P.POSS=DET die-3=DET-ADJZ child-DIM-PL these

mòrá àd̀d̀míàrò ànf̣āmíà líf̣íà  
 mòrá àd̀d̀í-mí-a=rò ànf̣áó-a líf̣í-mí-a  
 3P small-DIM-P=DAT twin-P orphan-DIM-P

‘Their mother being dead, these children were left as young, orphaned twins.’

- (798) hálás ábbà sóntóò ní bórò bìrìgí f̣f̣ùrò kólàṅà  
 hálás ábbà sóntó=ò ní bórò bìrìgí f̣f̣ùrò kólò-a=ṅà  
 now father 3P.POSS=DET and very old work field-P-GEN.S  
 ní gúrò g̀s̀íní àg̀òní f́óró sóntóò àì  
 ní gúrò Ø-j-kís-ní àg̀òní f́óró sóntó=ò àì  
 and unable 3.OBJ-3-do-NEG again cow 3P.POSS=DET this  
 ììràá mèré ní nóṃf̣f̣órtí làó f̣f̣ènné  
 ìì-ré=à mèré ní nóṃf̣f̣órtí làó Ø-j-jén-ré  
 milk-ADJZ=DET 3S and dryness toward 3.OBJ-3-give-ADJZ  
 ‘Well, their father was very old and was no longer able to do the field work;  
 furthermore their milk cow was starting to dry up.’

- (799) àgó té bóssòrò hálás kùṛf̣íà tá mòrá  
 àgó té Ø-bó-z-t=rò hálás kùṛf̣í-mí-a tá mòrá  
 now that 3-remain-P=DAT well child-DIM-P these 3P  
 b̀ò̀nṭíré bèi àd̀d̀míà ábbà sóntóò  
 bó-j-n-t-ré Ø-bé(g) àd̀d̀í-mí-a ábbà sóntó=ò  
 grow-3-LV-P-ADJZ 3-be.not small-DIM-P father 3P.POSS=DET  
 ní big̣írí f́óró sóntóò ní dàó ní dàó f̣f̣órtí  
 ní big̣írí f́óró sóntó=ò ní dàó ní dàó f̣f̣órtí  
 and old cow 3P.POSS=DET and head and head dry.up.INF  
 làó f̣f̣ènné  
 làó Ø-j-jén-ré  
 toward 3.OBJ-3-give-ADJZ  
 ‘So they were left like that; the young children were not grown, their father was old, and to top it off, their cow no longer gave milk.’

- (800) ájá sóntóò mòrágà hálás wókí náánárò  
 ájá sóntó=ò mòrá=gà hálás wókí nááná=rò  
 mother 3P.POSS=DET 3P=ACC well moment each=DAT  
 ṣoḏ̣ṣa sóntóò f̣f̣éṅà mèré ní  
 ṣoḏ̣ṣa sóntó=ò Ø-j-jén=ṅà mèré ní  
 consolation 3P.POSS=DET 3.OBJ-3-give=REL 3S and

ɸɸèinné

ɸɸé-j-n-ré

die-3-LV-ADJZ

'Their mother who had at every moment cared for them was dead.'

- (801) hálás àgó ìní gìssìgìré bèí  
 hálás àgó ìní Ø-j-kís-t-gì-ré Ø-bé(g)  
 well now thing 3.OBJ-3-do-IPFV-ADJZ 3-be.not  
 'There was nothing they could do.'
- (802) té bússòrò ábbà sóntóò méré ná térò ní  
 té Ø-búz-t=rò ábbà sóntó=ò méré ná Ø-tér ní  
 that 3-remain-P=DAT father 3P.POSS=DET 3S also 3-go and  
 àrírì kòrírì ní méré ná àrírì sómmà  
 àrírì kòrírì ní méré ná àrírì sòn=mà  
 woman another and 3S also husband 3S.POSS=DET  
 nàsòré méré ní jàlìjà déi àrírì tégà  
 Ø-nás-ré méré ní jàlì-mí-a Ø-j-téi àrírì té=gà  
 3-die-ADJZ 3S and child-P 3.OBJ-3-have woman that=ACC  
 mówò  
 Ø-j-móg  
 3.OBJ-3-pull.out  
 'While they remained like that, their father went and found another woman  
 whose husband had died, and who had children, and he married that woman.'
- (803) àrírì tégà mówò gòrtírérò  
 àrírì té=gà Ø-j-móg Ø-j-kórt-ré=rò  
 woman that=ACC 3.OBJ-3-pull.out 3.OBJ-3-bring-ADJZ=DAT  
 bárá tìgìsìjàré àgó jàlìjà ní  
 bárá Ø-tìgìsìjà-ré àgó jàlì-mí-a ní  
 after 3-happen=REL-ADJZ now child-DIM-P and  
 hànàntíjì ájá sóntóò bèí  
 hana-Ø-n-t-m-gì ájá sóntó=ò Ø-bé(g)  
 know-3.OBJ-LV-P-2-IPFV mother 3P.POSS=DET 3-be.not  
 'Now it happened after he married this woman and brought her  
 home . . . well, you know their (the children's) mother wasn't there.'
- (804) àrírì ài èskírù írìjà méré jàlìjà ɸɸúú  
 àrírì ài èskí=rù Ø-írì=jà méré jàlì-mí-a ɸɸúú  
 woman this new=DAT 3-come=REL 3S child-DIM-P two

dèi àgòní màáfi wórtòò ní jàlǐǎ  
 Ø-j-téi àgòní màáfi wórtò=ò ní jǎli-mí-a  
 3.OBJ-3-have again food 3.OBJ-3-cook=CNTG and child-DIM-P  
 tààrá lífǐǎàrù màáfi zágà  
 tààrá lífǐ-mí-a=à=rù màáfi zágà  
 our orphan-DIM-P=DET=DAT food manner  
 fǐǐǎà hànàntǐǐ  
 Ø-j-jén=ǐà=à hana-Ø-n-t-m-gì  
 3.OBJ-3-give=REL=DET know-3.OBJ-LV-P-2-IPFV  
 ‘The new arrived wife had two children and when she prepared food, well,  
 you know how she treated our orphans.’

- (805) zágà fǐǐǎà áfrikà òrò kògòòré ámmá  
 zágà Ø-j-jén=ǐà=à áfrikà òrò kògòó-ré ámmá  
 manner 3.OBJ-3-give=REL=DET (place) in if-ADJZ people  
 árá ónnó jéskàà kògòòré tórkò ní èddín  
 árá ónnó jéskò-a=à kògòó-ré tórkò ní èddín  
 these now black-P=DET if-ADJZ help and religion  
 sóntóò àddí kògòòré kúrǎ àrǐ méré  
 sóntó=ò àddí kògòó-ré kúrǐ-a àrǐ méré  
 3P.POSS=DET a.little if-ADJZ child-P woman 3S  
 sóntóòǐǎà dàkkǐnǐ  
 sóntó=ò=ǐà=gà Ø-j-dák-t-ní  
 3P.POSS=DET=REL=ACC 3.OBJ-3-give-P-NEG  
 ‘Given how in Africa these black people help only a little and follow their  
 religion only a little, a wife doesn’t love the children of a co-wife.’

- (806) àgó ìní té kégérò hàlás kúrǎ tá kágàà  
 àgó ìní té kégé=rò hàlás kúrǐ-a tá kégé-a=à  
 now thing that like=DAT well child-P these like-P=DET  
 fǐǐǐǐǐǐ mòrá dǒóná ájá sóntóòǐǎà  
 j-jǐǐǐ(g)-t=ǐ mòrá dǒón-á ájá sóntó=ò=ǐà  
 3-go.out-P=CNTG 3P song-P mother 3P.POSS=DET=REL  
 ní gòǐntǐǐ fǐró sóntóò  
 ní gó-j-n-t-gì fǐró sóntó=ò  
 and take-3.OBJ-3-LV-P-IPFV cow 3P.POSS=DET  
 ní mòráì fǐlǐntǐǐ  
 ní mòrá=ì fǐlǐ-j-n-t-gì  
 and 3P=ERG pasture-3.OBJ-3-LV-P-IPFV  
 ‘Now it being like that, these children when they went out would sing songs  
 about their mother and would pasture their cow.’

- (807) àgó kàrágà òrò turtòò fòró sóntòò fòrɸɸi  
 àgó kàrágà òrò Ø-tér-t=ò fòró sóntó=ò fòrɸɸi  
 now bush in 3-go-P=CNTG cow 3P.POSS=DET dung  
 gálɸɸɪŋòò fòrɸɸi té kégàà tòské  
 gált-j-n-gì=ò fòrɸɸi té kégé-a=a tòské  
 drop-3.OBJ-3-LV-IPFV=CNTG dung that like-P=DET biscuit  
 tìgìsìré mòràì tòské té kégàà  
 Ø-tìgìsò-ré mòrá=i tòské té kégé-a=a  
 3-become-ADJZ 3P=ERG biscuit that like-P=DET  
 wòdìgì  
 Ø-j-bó-t-gì  
 3.OBJ-3-eat-P-IPFV

‘Now when they had gone out to the bush, whenever their cow dropped a cow pie, just like that the cow pie would become a biscuit and they would eat the biscuit.’

- (808) àgó tèré kégérò àɸjóò àì ónnó mèré  
 àgó té-ré kégé=rò àɸjì=ò àì ónnó mèré  
 now that-ADJZ like=DAT old.woman=DET this now 3S  
 sóntóò jàlìíà sònààrò gírínìgì  
 sóntó=ò jálì-mí-a sòn-a=a=rò Ø-j-kàrínù-gì  
 3P.POSS=DET child-DIM-A 3S.POSS-P=DET=DAT 3.OBJ-3-feed-IPFV  
 ní ìní ginná ɸjénìgì ɸjírò jàlìíà  
 ní ìní ginná Ø-j-jén-gì ɸjírò jálì-mí-a  
 and thing all 3.OBJ-3-give-IPFV but child-DIM-P  
 sònàà òrénà árá ní kàrànná  
 sòn-a=a òrénì-a árá ní karan-ré-a  
 3S.POSS-P=DET thin-ADJZ-P these and fat-ADJZ-P

‘That being the case, though the old woman would feed her children well and give them everything, yet they were skinny while these (two twins) were fat.’

- (809) hálás ɲòlá sóntáà ní fùdirá ní wókí  
 hálás ɲòlò-a sóntó-a=a ní fùdí-ré-a ní wókí  
 well cheek-P 3P.POSS-P=DET and blow-ADJZ-P and moment  
 náánárò ɸjóssòrò ɸjikkí  
 nááná=rò ɸjóssò=rò Ø-ɸjìg-t  
 each=DAT happy=DAT 3-be-P

‘Their cheeks were filled out [i.e. healthy] and they were constantly happy.’



- (810) àgó ìní té kégàà mòráàrò ɸjúkì  
 àgó ìní té kégé-a=à mòrá=rò ɸjúk-j  
 now thing that like-P=DET 3P=DAT focus.on-3.OBJ-3  
 làíní hànàntínì  
 lá-Ø-j-n-í hana-Ø-n-t-m-gì  
 look.at-3.OBJ-3-LV-PROG know-3.OBJ-LV-P-2-IPFV  
 ‘So it being like that, you know that she watched them very closely.’

- (811) àríá mòrá kùnnó sóntóò bóró ní  
 àrí-a mòrá kùnnó sóntó=ò bóró ní  
 woman-P 3P scheming 3P.POSS=DET very and  
 dònàré  
 dónà-ré  
 strength-ADJZ  
 ‘Women, they are very scheming and strong.’

- (812) tèré kégé àgó àríí gísò ní ábbà  
 té-ré kégé àgó àríí Ø-j-kís ní ábbà  
 that-ADJZ like now woman 3.OBJ-3-do and father  
 sóntóòrò fàrigìré àgó mèré ná  
 sóntó=ò=rò Ø-j-fár-gì-ré àgó mèré ná  
 3P.POSS=DET=DAT 3.OBJ-3-say-IPFV-ADJZ now 3S also  
 wòǝí kégénérò wókí náánárò tàní wòǝí wòǝí wòǝí  
 wòǝí kégéné=rò wókí nááná=rò tàní wòǝí wòǝí wòǝí  
 ill like=DAT moment each=DAT 1S ill ill ill  
 fàrigì  
 Ø-j-fár-gì  
 3.OBJ-3-say-IPFV  
 ‘So that’s what this woman did, acting ill constantly and saying to their father,  
 “I’m ill, I’m ill, I’m ill.”’

- (813) áà ìnní gúúú r nóm m m à jìnì  
 áà ìnní gúúú r nóm=m à Ø-j-n-í  
 EXCL what sickness 2S.POSS=DET 3.OBJ-3-say-PROG  
 ‘“Ah, what is your sickness?” he (would) be saying.’

- (814) áà tàní màsón fóró ài bèlɛɲà bòrdóó  
 áà tàní màsón fóró ài bèlɛ=ɲà Ø-bó-r-ní-ò  
 EXCL 1S liver cow this milk=GEN.S 3.OBJ-eat-1-NEG=CONTG

tìgìsìní jí  
 Ø-tìgìsó-ní Ø-j-(n)  
 3-happen-NEG 3.OBJ-3-say

'She said, "Ah, I absolutely must eat the liver of this milk cow [lit. it can't be that I not eat...]."'

- (815) àgó hànàntínì àríá gòròkà nòṅó  
 àgó hana-Ø-n-t-m-gì àríf-a gòròkó-a nòṅó  
 now know-3.OBJ-LV-P-2-IPFV wife-P some-P these.days  
 ná àniá sóntáàgà zágà nááná  
 ná àníf-a sóntó-a=à=gà zágà nááná  
 also husband-P 3P.POSS-P=DET=ACC manner each  
 àniá dàifà kògònòré jèrḡntìré ìní  
 àníf-a dàif-a kògònò-ré jér-j-n-t-ré ìní  
 husband-P weak.willed-P like-ADJZ rise-3-LV-P-ADJZ thing  
 mòrái gissó fáttò ginná àniá  
 mòrá=ì Ø-j-kís-t Ø-j-fár-t=ò ginná àníf-a  
 3P=ERG 3.OBJ-3-do-P 3.OBJ-3-say-P=DET all husband-P  
 sóntáàì gòntìré gissìgì  
 sóntó-a=à=ì gó-j-n-t-ré Ø-j-kís-t-gì  
 3P.POSS-P=DET=ERG take-3.OBJ-3-LV-P-ADJZ 3.OBJ-3-do-P-IPFV  
 'Now you know how it is these days, that some women have weak-willed husbands, and whatever they tell them to do, their husbands will get up and do it.'

- (816) àgó tèré kégréò fóró òwí tégà  
 àgó té-ré kégé=rò fóró òwí té=gà  
 now that-ADJZ like=DAT cow milk.giving that=ACC  
 góì gálḡí ní ḡḡrù  
 gó-Ø-j gál-Ø-j ní Ø-j-jíd  
 take-3.OBJ-3 drop-3.OBJ-3 and 3.OBJ-3-kill  
 'So that's how it was that he took that milk-giving cow, felled it, and killed it.'

- (817) àgó ḡḡrù ní màsón té ḡḡn wóì  
 àgó Ø-j-jíd ní màsón té Ø-j-jén Ø-j-bó  
 now 3.OBJ-3-kill and liver that 3.OBJ-3-give 3.OBJ-3-eat  
 'He killed it and he gave (her) the liver and she ate it.'

- (818) àgó jàlǐà tá kágáà mòrá ná  
 àgó jálì-mí-a té-a kégé-a=à mòrá ná  
 now child-DIM-P that-P like-P=DET 3P also

ɸ́júkintù		làintí		ábbà	
ɸ́júk-Ø-j-n-t		lá-Ø-j-n-t-í		ábbà	
focus.on-3.OBJ-3-LV-P		watch-3.OBJ-3-LV-P-PROG		father	
sóntóò	ní	dónà	ínní	ná	dèiní
sóntó=ò	ní	dónà	ínní	ná	Ø-j-téi-ní
3P.POSS=DET	and	strength	what	also	3.OBJ-3-have-NEG
zágà	mòrágà	gìrìnìgìré		bèi	
zágà	mòrá=gà	Ø-j-kìrìnù-gì-ré		Ø-bé(g)	
manner	3P=ACC	3.OBJ-3-feed-IPFV-ADJZ		3-be.not	

‘So now, things being like that, the children looked carefully at the fact that their father had no strength and no means to feed them.’

- (819) f́óró sóntóò àì mòrárò f́órɸ́ì  
 f́óró sóntó=ò àì mòrárò f́órɸ́ì  
 cow 3P.POSS=DET this 3P=DET cow.pie  
 gálɸ́ìŋɔ̀ò tòské gòintò  
 gál-Ø-j-n-gì=ò tòské gó-j-n-t  
 drop-3.OBJ-3-LV-IPFV=CONTG biscuit take-3.OBJ-3-LV-P  
 wódògàà f́óró té ní bèi násò  
 Ø-j-bó-t-gì=a f́óró té ní Ø-bé(g) Ø-násò  
 3.OBJ-3-eat-P-IPFV=DET cow that and 3-be.not 3-die  
 ‘This cow of theirs, which when he dropped a cow pie they would take it and eat as a biscuit, this cow was dead and gone.’

- (820) àgó té tìgìsìŋàré mòrá ná jèrɸ́ìntò ní  
 àgó té tìgìsò=ŋà-ré mòrá ná jért-j-n-t ní  
 now that 3-happen=REL-ADJZ 3P also rise-3-LV-P and  
 kàrágà zòttó  
 kàrágà Ø-zód-t  
 bush 3-enter-P  
 ‘This having happened, they rose up and entered into the bush.’

- (821) àgó kàrágà té òrò túrtù ní àmià ɸ́íúú tá  
 àgó kàrágà té òrò Ø-tér-t ní àmi-a ɸ́íúú té-a  
 now bush that in 3-go-P and boy-P two that-P  
 ‘Now they went into the bush, those two boys.’

- (822) hálás olufajè alaajè èjénájè ìní ónnó  
 hálás olufi-a=jè ala-a=jè èjén-a=jè ìní ónnó  
 well chive-P=and wild.fruit-P=and berry-P=and thing now

kàrágà òrò hákíntigàà ginná

kàrágà òrò hák-Ø-j-n-t-gì=à ginná

bush in find-3.OBJ-3-LV-P-IPFV=DET all

wódìgì

Ø-j-bó-t-gì

3.OBJ-3-eat-IPFV

‘Well they would eat whatever they could find that is in the bush: leeks, wild fruits, and berries.’

- (823) àgú àiré kégérò ɸĩkkí bóssòrò jòm t'rá  
 àgú ài-ré kégé=rò Ø-ɸĩg-t Ø-bóz-t=rò jòm t'rá  
 now this-ADJZ like=DAT 3-be-P 3-remain-P=DAT day INDF  
 tìgìsìjàré hálás bélké lòfójèrù jèrɸintíí  
 tìgìsò=jà-ré hálás bélké lòfójè=rù jért-j-n-t-í  
 3-happen=REL-ADJZ well morning dawn=DET rise-3-LV-P-IPFV  
 bélké té=rò àú kégérò ìrìí ìnóò  
 bélké té=rò àú kégé=rò Ø-ìrì-í ìní=ò  
 morning that=DET man like=DAT 3-come-PROG thing=DET  
 àú ɸíí  
 àú ɸíí  
 man not

‘So that is how they were existing like until one day, while getting up early in the morning, something like person was coming—but it wasn’t a person.’

- (824) làó sòn tìrómmà àú làó sòn tìrómmà ní  
 làó sòn tìrǝn=mà àú làó sòn tìrǝn=mà ní  
 side 3S.POSS one=DET man side 3S.POSS one=DET and  
 harwan kòrí t'rá  
 harwan kòrí t'rá  
 creature another INDF

‘One side of him was a person; one side was some other kind of creature.’

- (825) ìní ìzé t'rá dòttòré bènní dóttò  
 ìní ìzé t'rá Ø-j-dód-t-ré Ø-bé(g)-ní Ø-j-dód-t  
 thing day INDF 3.OBJ-3-see-P-ADJZ 3-be.not-NEG 3.OBJ-3-see-P  
 ‘They saw a thing they had never seen before.’

- (826) àgú mòrá ginná àòɸintíí harwanòì mòrárò  
 àgú mòrá ginná aos-j-n-t-í harwan=ò=ì mòrá=rò  
 now 3P all fear-3-LV-P-PROG monster=DET=ERG 3P=DAT

fàrìgìré                      sọ      àòssòmí  
 Ø-j-fár-gì-ré              sọ      aòs-t-m-ní  
 3.OBJ-3-say-IPFV-ADJZ   not   fear-P-2-NEG

‘Now as they were both afraid, the creature says to them, “Don’t be frightened.”’

- (827)    tàní    h́ermà              òtím      ʃìnnóó  
           tàní    h́ér=mà            òtím      ʃíí-ní-ré=ò  
 1S      fortune=DET    2P.POSS   not-NEG-ADJZ=CONTG  
 ʃ́ermà                      òtím      ʃíí      jí  
 ʃ́ér=mà                    òtím      ʃíí      Ø-j-(n)  
 misfortune=DET    2P.POSS   not    3.OBJ-3-say  
 ‘I am [lit. ‘I’m not not’] your bearer of good fortune, not your bearer of misfortune,” he said.’

- (828)    kʷóí    t́érò              mòrárò      gálìrò              gálàí              ní      nìntá  
           kʷóí    t́é=rò              mòrá=rò      gálì=rò              gálá-Ø-j            ní      nìntá  
 place    that=DAT    3P=DAT    good=DAT    advise-3.OBJ-3    and    2P  
 ónnó    àí      ḱégérò              m̀iské    òtímmà              zágà              ónnó  
 ónnó    àí      ḱégé=rò              m̀iské    òtím=mà              zágà              ónnó  
 now    this    like=DAT    life      2P.POSS=DET    manner    now  
 òrókkìmma              ní      hànànírgì  
 òróg-t-m=mà            ní      hana-Ø-n-r-gì  
 go.out-P-2=DET    and    know-3.OBJ-LV-1-IPFV  
 ‘Right there he counseled them well (saying) “I know you, how your life is now, and how you’ve gone out.”’

- (829)    zágà      ónnó    òf́f́kkòó              ní      hànànírgì  
           zágà      ónnó    n-f́f́g-t=ò              ní      hana-Ø-n-r-gì  
 manner    now    2-be-P=DET    and    know-3.OBJ-LV-1-IPFV  
 “I know how you are existing now.”

- (830)    hálás    tàní    ónnó    źóntó    nìgìsìt̀rdí  
           hálás    tàní    ónnó    źóntó    n-kís-t-r-dí  
 well    1S    now    evil    2.OBJ-do-P-1-NEG  
 “I will not harm you.”

- (831)    ǹntàrò      gálì      ʃìnnóó                      źóntó      nìgìsìt̀rdí  
           ǹntá=rò      gálì      ʃíí-ní-ré=ò              źóntó      n-kís-t-r-dí  
 2P=DAT    good    not-NEG-ADJZ=CONTG    evil    2.OBJ-do-P-1-NEG

ní dínèrù inní dàkkím jí  
 ní dínè=rù inní Ø-dák-t-m Ø-j-(n)  
 and world=DAT what 3.OBJ-want-P-2 3.OBJ-3-say  
 “I will do good to you; I will not harm you. What do you desire in the world?”

- (832) dínèrù hálás mòráì ónnó míské òtírò  
 dínè=rù hálás mòrá=ì ónnó míské òtír=ò  
 world=DAT well 3P=ERG now life 1P.POSS=DET  
 hànàntíjàà bárá inní jó ná nìntàì  
 hana-n-t-m-gì=a bárá inní jó ná nìntà=ì  
 know-3.OBJ-LV-P-2-IPFV=DET after what well also 2P=ERG  
 òtá kégé ná ònì jó ná tìntárò tìgìssím  
 òtá kégé ná ònì jó ná tìntá=rò t-kís-t-m  
 2S like also thing well also 1P=DAT 1.OBJ-do-P-2  
 tentimma fìnnóó tìntá ònì kòrí  
 tentim=ma fì-ní-ré=ò tìntá ònì kòrí  
 agreement=DET not-NEG-ADJZ=CONTG 1P thing another  
 hànàntírgiré fíí ei òtò  
 hana-n-t-r-gì-ré Ø-fí(g) ei Ø-j-n-t  
 know-3.OBJ-LV-P-1-IPFV-ADJZ 3-be RHET 3.OBJ-3-say-P  
 “They said, “Since you know about our life, you being like that, we accept  
 whatever you want to do to us. Could we know of something else?”

- (833) àgó té tìgìsòò nùṅkùmmí jí  
 àgó té Ø-tìgìsò=ò nùṅ-t-m-ní Ø-j-Ø  
 now that 3-happen=CONTG speak-P-2-NEG 3.OBJ-3-say  
 ‘Now when that happened, he said “Don’t speak.”’

- (834) kʷòí té rò hálás ònì inní jó ná dínèrù  
 kʷòí té=rò hálás ònì inní jó ná dínè=rù  
 place that=DAT well thing what well also world=DAT  
 dàkkómmà tànù dàgírò zágà ónnó  
 Ø-dák-t-m=mà tànì=ì Ø-dák-r=ò zágà ónnó  
 3.OBJ-want-P-2=DET 1S=ERG 3.OBJ-want-1=DET manner now  
 fàttómmaré kégérò nìgìsìtìrgiré  
 Ø-fár-t-m=mà-ré kégé=rò n-kís-t-r-gì-ré  
 3.OBJ-say-P-2=DET-ADJZ like=DAT 2.OBJ-do-P-1-IPFV-ADJZ  
 jí  
 Ø-j-Ø  
 3.OBJ-3-say

'Then he said, "The thing that you want in the world . . . What I want is to do to you as you have said."'

- (835) kʷòí téré méréí zágà sún t'rárò  
 kʷòí téré=rò méré=i zágà sún t'rá=rò  
 place that=DAT 3S=ERG manner 3S.POSS INDF=DAT  
 gísò ní kúrfá tá borowajnto  
 Ø-j-kís ní kúrfí-a té-a borowa-j-n-t  
 3.OBJ-3-do and child-P that-P become.rich-3-LV-P  
 'Right there, after a certain manner of his he did something and the children became rich!'

- (836) àgú kimeré sántóò té òrò fíkkí bóssòrò  
 àgú kimeré sántó=ò té òrò Ø-fígg-t Ø-bóz-t=rò  
 now wealth 3P.POSS=DET that in 3-be-P 3-remain-P=DAT  
 kimeré té òrò òrózìjè dúnùrjè jó hálás  
 kimeré té òrò òrózì=jè dúnùr=jè jó hálás  
 wealth that in livestock=and gold=and well well  
 òrózà mòrá ná fórájè jó áskájè  
 òrózì-a mòrá ná fóró-a=jè jó áskí-a=jè  
 livestock-P 3P also cow=P=and well horse-P=and  
 gʷònájè ìní ginná wòsòórò dédí  
 gʷòní-a=jè ìní ginná wòsòó=rò Ø-j-téi-t  
 camel-P=and thing all herd=DAT 3.OBJ-3-have-P  
 'Now there they were living in that wealth of theirs, wealth that included animals and gold, and among the animals they had cattle and horses and camels, each in its herd.'

- (837) àgòní ámmá ágárájè bírájè  
 àgòní ámmá égíré-a=jè bíré-a=jè  
 again people male.slave-P=and female.slave-P=and  
 sántáàjè mòrá ná dúbú góra  
 sántó-a=a=jè mòrá ná dúbú góra-a  
 3P.POSS-P=DET=DAT 3P also one.thousand about-P  
 'Also their male slaves and female slaves, they numbered about a thousand.'

- (838) té kégérò kúrfá tá mòrá ná òrò kágá  
 té kégé=rò kúrfí-a té-a mòrá na òrò-a kégé-a  
 that like=DAT child-P that-P 3P also chief-P like-P

ná tigissó

ná Ø-tigis-t

also 3-become-P

'That is how these children came to be like kings.'

- (839) fɛ́kkí fɛ́kkí fɛ́kkí bóssòrò jòm t'rá  
 Ø-fɛ́g-t Ø-fɛ́g-t Ø-fɛ́g-t Ø-bóz-t=rò jòm t'rá  
 3-be-P 3-be-P 3-be-P 3-remain-P=DAT day INDF  
 tigìsìnàré éfè àrìí téì  
 Ø-tigìsò=ɲà-ré éfè àrìí té=ì  
 3-happen=REL-ADJZ loneliness woman that=ERG  
 óttùrù àgó fɛ́zòò lókò bìzìré  
 óttù=rù àgó fɛ́zò=ò lókò bìzì-ré  
 far.away=DAT now old.man=DET when poverty-ADJZ  
 ní fòrá dèdìní hálás fɛ́zòò  
 ní fòró-a Ø-j-téi-t-ní hálás fɛ́zò=ò  
 and cow-P 3.OBJ-3-have-P-NEG well old.man=DET  
 dónà sómmà ní àddí tigisó ní hálás  
 dónà sòn=mà ní àddí Ø-tigisó ní hálás  
 strength 3S.POSS=DET and a.little 3-happen and well  
 fɛ́zò té kɛ́ tigìnésù  
 fɛ́zò té kɛ́ Ø-tigìnés  
 old.man that with 3-separate

'They lived on and on and on like that until it happened that one day, far way, the wife lonely and the old man being poor, having no cattle, and his strength diminished, she separated from the old man.'

- (840) mèré ní jálà sònàà ɔɔɔ fɛ́zòò  
 mèré ní jálì-a sòn-a=à ɔɔɔ-Ø-j fɛ́zò=ò  
 3S and child-P 3S.POSS-P=DET keep-3.OBJ-3 old.man=DET  
 ní kée òrò dèiní àrìí ní  
 ní kée òrò Ø-j-téi-ní àrìí ní  
 and hand in 3.OBJ-3-have-NEG woman and  
 dèiní fòró ní dèiní dónà ní  
 Ø-j-téi-ní fòró ní Ø-j-téi-ní dónà ní  
 3.OBJ-3-have-NEG cow and 3.OBJ-3-have-NEG strength and  
 dèiní tigisó  
 Ø-j-téi-ní Ø-tigis  
 3.OBJ-3-have-NEG 3-happen

'She kept her children and so the old man came to have no children with him, no wife, no cow, and no strength.'



- (841)      ínì            té            hànàntǎ̀jì                          mískilà  
ínì        té       hana-Ø-n-t-m-gì                          mískilè-a  
thing     that   know-3.OBJ-LV-P-2-IPFV     problem-P  
'You know that that is a problem.'

(842)      mískilà            tɛ̀í                          zágá            bòzògírɛ́                          bèí  
mískilè-a        tɛ́=i                          zágá            Ø-bózò-gì-ré                          Ø-bé(g)  
problem-P      that=ERG      manner      3-remain-IPFV-ADJZ      3-be.not  
kʷóí    tírčn    dáá  
kʷóí    tírčn    dáá  
place   one    on  
'The problem was that he couldn't stay there in one place.'

(843)      jètřĩ    ní    hàlás    àgá    řřòróú    ní    zágá    dèddé  
jért-j    ní    hàlás    àgá    j-tòróú    ní    zágá    d-tér-ré  
rise-3    and   well   outside   3-leave   and   manner   1-go-ADJZ  
màáfĩ   nír            bàrànrídé    dígánì  
màáfĩ   nír            bara-Ø-n-r-ré    d-tígán-i  
food    1S.POSS   search.for-3.OBJ-LV-1-ADJZ    1-walk-PROG  
bàrànrīgì    jí  
bara-Ø-n-r-gì    Ø-j-Ø  
search.for-3.OBJ-LV-1-IPFV      3.OBJ-3-say  
'So he rose up and went out and said "The way I'll go looking for my food, I will walk about searching."'

(844)      té    kégréù    àgá    fogara    kégréù    minésèrò  
té    kégé=rò    àgá    fogar-a    kégé=rò    minésà=rò  
that   like=DAT   outside   beggar-P   like=DAT   begging=DAT  
'So it was like that he was out and around as a beggar.'

(845)      kʷóí    térò            jégá    árá    ámmá    bórówáà    ginnága  
kʷóí    té=rò            jégè-a    árá    ámmá    bórówé-a=a    ginná=gà  
place   that=DAT   house-P   these   people   rich-P=DET   all=ACC  
térigì  
Ø-tér-gì  
3-go-IPFV  
'In that place he would go to the houses of all the rich people.'

(846)      àgú    téréðò            ðóná    sóna                          gójṇàà  
àgú    Ø-tér=ð            ðòón-a    són-a                          gó-Ø-j-n-gì=à  
now    3-go-CNTG   song-P   3S.POSS=P   take-3.OBJ-3-LV-IPFV=DET

àgó ìní àríf sómà kégàà zágà ónnó  
 àgó ìní àríf són=mà kégé-a=à zágà ónnó  
 now thing woman 3S.POSS=DET like-P=DET manner now  
 fǽimàjè zágà jàlǽà sònàà  
 fǽ-Ø-j=mà=jè zágà jàlǽ-mí-a sòn-a=à  
 lose-3.OBJ-3=DET=and manner child-DIM-P 3S.POSS-P=DET  
 ónnó kàràgà zòttóṅàjè fòró sómà  
 ónnó kàràgà Ø-zór-t=ṅà=jè fòró són=mà  
 now bush 3-enter-P=GEN.S=and cow 3S.POSS=DET  
 bele zágà ónnó fǽrìṅàjè àríf són  
 bele zágà ónnó Ø-j-jid=ṅà=jè àríf són  
 milking manner now 3.OBJ-3-kill=REL=and woman 3S.POSS  
 tèèrè kǽ zágà fǽkkírò  
 tèèrè kǽ zágà Ø-fǽg-t=rò  
 the.other with manner 3-be-P=DAT

‘Now when he went the songs he would take up were about how his wife had died, how his children had gone into the bush, how he had killed his milk cow, how it was with his other wife and all the things like that.’

- (847) hálás jégà árá ónnó kúrfá sònààṅàrò  
 hálás jégè-a árá ónnó kúrfǽ-a sòn-a=à=ṅà=rò  
 now house-P these now child-P 3S.POSS-P=DET=REL=DAT  
 dǽná tá bèdǽ  
 dǽón-a té-a bèdǽ-Ø-j  
 song-P that-P begin-3.OBJ-3

‘Well he started singing those songs at the houses that now were his children’s.’

- (848) àgó dǽn té gǽṅì gǽṅì  
 àgó dǽn té gǽ-Ø-j-n-gì gǽ-Ø-j-n-gì  
 now song that take-3.OBJ-3-LV-IPFV take-3.OBJ-3-LV-IPFV  
 tǽgìsìṅàré jàlǽàà àgó àǽ àì  
 Ø-tǽgìsù=ṅà-ré jàlǽ-mí-a=à=ì àgó àǽ àì  
 3-happen=REL-ADJZ child-DIM-P=DET=ERG now person this  
 ábbà sǽntóò fǽnnó àǽ kòrí  
 ábbà sǽntó=ò fǽ-ní-ré=ò àǽ kòrí  
 father 3P.POSS=DET not-NEG-ADJZ=CONTG person another  
 fǽ ntò  
 fǽ Ø-j-n-t  
 fǽ 3.OBJ-3-say-P

‘When he had sung the song over and over and over, the children said that this had to be their father.’

- (849) té kégérò ámmá árá gérda suntaaru  
 té kégé=rò ámmá árá gérda-sóntó-a=a=rò  
 that like=DAT people those guard-P 3P.POSS-P=DET=DAT  
 fàttigiré fǔzòù àì ónnó sòppó  
 Ø-fár-t-gì-ré fǔzò=ò àì ónnó Ø-sób-p-Ø  
 3.OBJ-say-P-IPFV-ADJZ old.man=DET this now 3.OBJ-leave-P-2  
 ná jégàà òrò zóré òtò  
 ná jégè=a òrò Ø-zórò-é Ø-j-n-t  
 also house=DET in 3-enter-OPT 3.OBJ-3-say-P  
 ‘So like that they said to the people who were now their guards, “Free this man and see that he comes into the house!”’

- (850) àgú zóro ní zòríí fúkintò  
 àgú Ø-zórò ní Ø-zórò-í fúk-Ø-j-n-t  
 now 3-enter and 3-enter-PROG focus.on-3.OBJ-3-LV-P  
 làntí ábbà sóntóò  
 lá-Ø-j-n-t-í ábbà sóntó=ò  
 watch-3.OBJ-3-LV-P-PROG father 3P.POSS=DET  
 jìnnóò àú kòrí jíí  
 jíí-ní-ré=ò àú kòrí jíí  
 not-NEG-ADJZ=CNTG person another jíí  
 ‘So he went in, and as he was entering and they were watching closely . . . this was no one but their father!’

- (851) àgú góintò ní ábbà sóntóòṅà  
 àgú gó-Ø-j-n-t ní ábbà sóntó=ò=ṅà  
 now take-3.OBJ-3-LV-P and father 3P.POSS=DET=GEN.S  
 kʷóí dáá nákkò  
 kʷóí dáá Ø-nág-t  
 place on 3.OBJ-place-P  
 ‘They took him and installed their father there.’

- (852) kʷóí téro hálás mèréro wúdirà sònàà  
 kʷóí té=rò hálás mèré=rò wúdir-a sòn-a=a  
 place that=DAT well 3S=DAT need-P 3S.POSS-P=DET  
 ginná ní gissó fǔntò mèré ní jálà  
 ginná ní Ø-j-kís-t Ø-j-jén-t mèré ní jálì-a  
 all and 3.OBJ-3-do-P 3.OBJ-3-give-P 3S and child-P

sónàà                      ní      àgó      hàkí  
 sòn-a=à                ní      àgó      hák-Ø-j  
 3S.POSS-P=DET      and      now      find-3.OBJ-3

'There they gave him everything he needed, and he, he had found his children.'

- (853)    té      kégérò      àgó      dínè      ní      dàó      kò<sup>w</sup>ŋ̃      ʔjén  
           té      kégé=rò      àgó      dínè      ní      dàó      kò<sup>w</sup>ŋ̃      Ø-j-jén  
           that    like=DAT    now    world    and    head    before    3.OBJ-3-give  
           'That is how the world is and that is the end.'

## References

- Abdoulaye, Mahamane Laoualy. 1985. *Morphophonologie des formes aspectuelles, temporelles et modales affirmatives et non-dérivés du verbe en tubu*. Niamey, Niger: Université de Niamey, MA thesis.
- Abraham, Werner. 2006. Introduction. Datives: structural vs. inherent—abstract vs. morphological—autonomous vs. combinatory—universally vs. language-specifically configured? In Daniel Hole, André Meinunger & Werner Abraham (eds.), *Datives and other cases: Between argument structure and event structure*, 3–46. Amsterdam: John Benjamins.
- Aikhenvald, Alexandra Y. 2006. Serial verb constructions in typological perspective. In Alexandra Aikhenvald & R. M. W. Dixon (eds.), *Serial verb constructions: A cross-linguistic typology* (Explorations in Linguistic Typology 2), 1–68. Oxford: Oxford University Press.
- Aikhenvald, Alexandra Y. 2007. Typological distinctions in word-formation. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 2, 1–65. Cambridge: Cambridge University Press.
- Alidou, Hassana. 1988. *Sur la morphophonologie du syntagme nominal en Tubu (dazaga de Tasker, Niger)*. Niamey, Niger: Université de Niamey, MA thesis.
- Allanga, Djimi. 2013. *Daga Dazagaa*. N'Djaména, Chad: Yagabi.
- Amani, Laouali. 1986. *Description phonologique du Tubu: Le parler dazaga de N'Gourti (Niger)*. Niamey, Niger: Université de Niamey, MA thesis.
- Amberber, Mengistu. 2011. Differential case marking of arguments in Amharic. In Andrej Malchukov & Andrew Spencer (eds.), *The Oxford handbook of case*, 742–755. Oxford: Oxford University Press.
- Andersen, Torben. 1988. Ergativity in Pāri, a Nilotic OVS language. *Lingua* 75. 289–324.
- Andrews, Avery D. 2007a. The major functions of the noun phrase. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 1, 132–223. Cambridge: Cambridge University Press.
- Andrews, Avery D. 2007b. Relative clauses. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 2, 206–236. Cambridge: Cambridge University Press.
- Anonby, Erik. 2007. Review of 'Grammaire du beria', by Angelika Jakobi and Joachim Crass. *Journal of African languages and linguistics* 28. 217–220.
- Aristar, Anthony Rodrigues. 1991. On diachronic sources and synchronic pattern: An investigation into the origin of linguistic universals. *Language* 67. 1–33.
- Aristar, Anthony Rodrigues. 1996. The relationship between dative and locative: Kuryłowicz's argument from a typological perspective. *Diachronica* 13. 207–224.
- Auwera, Johan von der. 2011. On the diachrony of negation. In Laurence R. Horn (ed.), *The expression of negation*, 73–109. Berlin: De Gruyter.

- Awagana, Ari. 2011. Racines lexicales sahariennes: Préludes à la reconstruction du vocabulaire de base. In Doris Löhr, Eva Rothmaler, & Georg Ziegelmeyer (eds.), *Kanuri, Borno and beyond: Current studies on the Lake Chad region*, 7–25. Köln: Rüdiger Köppe.
- Baker, Brett & Mark Harvey. 2010. Complex predicate formation. In Mengistu Amberber, Brett Baker, & Mark Harvey (eds.), *Complex predicates: Cross-linguistic perspectives on event structure*, 13–47. Cambridge: Cambridge University Press.
- Baker, Mark C. 1988. *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.
- Baker, Mark C. 1989. Object sharing and projection in serial verb constructions. *Linguistic Inquiry* 20. 513–553.
- Baker, Mark C. 1997. Complex predicates and agreement in polysynthetic languages. In Alex Alsina, Joan Bresnan & Peter Sells (eds.), *Complex predicates* (CSLI Lecture Notes 64), 247–288. Stanford, CA: Center for the Study of Language and Information.
- Baker, Mark C. 2003. *Lexical categories: Verbs, nouns, and adjectives* (Cambridge Studies in Linguistics 102). Cambridge: Cambridge University Press.
- Baker, Mark C. 2012. On the relationship of object agreement and accusative case: Evidence from Amharic. *Linguistic Inquiry* 43. 255–274.
- Baroin, Catherine. 1997. *Tubu: The Teda and the Daza*. New York: The Rosen Publishing Group.
- Barth, Heinrich. 1862. *Sammlung und Bearbeitung Central-Afrikanischer Vokabularien*. Gotha, Germany: Justus Perthes.
- Beck, David. 2002. *The typology of parts of speech systems: The markedness of adjectives*. London: Routledge.
- Bender, Marvin Lionel. 1991. Sub-classification of Nilo-Saharan. In M. Lionel Bender (ed.), *Proceedings of the 4th Nilo-Saharan Linguistics Colloquium, (Nilo-Saharan: Linguistic Analyses and Documentation Vol. 7)*, 1–35. Hamburg: Helmut Buske Verlag.
- Bhat, D. N. S. 1994. *The adjectival category: Criteria for differentiation and identification* (Studies in Language Companion Series 24). Amsterdam: John Benjamins.
- Blake, Barry J. 2001. *Case*. 2nd edn. Cambridge: Cambridge University Press.
- Bondarev, Dmitry. 2010. Complex clauses in Old Kanembu/LG. In Georg Ziegelmeyer & Norbert Cyffer (eds.), *Aspects of co- and subordination: Case studies from African, Slavonic, and Turkic languages*, 213–250. Köln: Rüdiger Köppe.
- Bondarev, Dmitry, Philip J. Jaggard, Doris Löhr & Abba I. Tijani. 2011. Differential subject marking in Kanuri: Agentivity, pragmatics, and split-intransitive. In Doris Löhr, Eva Rothmaler, & Georg Ziegelmeyer (eds.), *Kanuri, Borno and beyond: Current studies on the Lake Chad region*, 27–57. Köln: Rüdiger Köppe.
- Boungol, Jean-Pierre. 1975. Esquisse préliminaire d'une phonologie de la langue daza. *Afrika und Übersee* 2. 257–259.

- Boyer, One & Elizabeth Zsiga. 2013. Phonological devoicing and phonetic voicing in Setswana. In Qlanikē Qla Orie and Karen W. Sanders (eds.), *Selected proceedings of the 43rd annual conference on African linguistics*, 82–89. Somerville, MA: Cascadilla Proceedings Project.
- Bril, Isabelle (ed.). 2010. *Clause linking and clause hierarchy: Syntax and pragmatics*. Amsterdam: John Benjamins.
- Bryan, Margaret Arminel. 1971. The verb classes in East Saharan languages. In Veronika Six, Norbert Cyffer, Ludwig Gerhardt, Hilke Meyer-Bahlburg, and Ekkehard Wolff (eds.), *Afrikanische Sprachen und Kulturen—ein Querschnitt* (Hamburger Beiträge zur Afrikakunde, 14), 224–234. Hamburg: Deutsches Institut zur Afrikaforschung.
- Bulakarima, Shettima Umara. 1997. Survey of Kanuri dialects. In Norbert Cyffer & Thomas Geider (eds.), *Advances in Kanuri scholarship*, 67–75. Köln: Rüdiger Köppe.
- Butt, Miriam. 1995. The structure of complex predicates in Urdu (Dissertations in Linguistics). Stanford: CSLI [Center for the Study of Language and Information] Publications.
- Butt, Miriam. 2010. The light verb jungle: Still hacking away. In Mengistu Amberber, Brett Baker & Mark Harvey (eds.), *Complex predicates: Cross-linguistic perspectives on event structure*, 48–78. Cambridge: Cambridge University Press.
- Bye, Patrick. 2011. Dissimilation. In Marc van Oostendorp, Colin J. Ewen, Elizabeth Hume & Keren Rice (eds.), *The Blackwell companion to phonology*, vol. 3, 1408–1433. Chichester, West Sussex, United Kingdom: Blackwell Publishing.
- Carbou, Henri. 1912. *La région du Tchad et du Oudaï: Études ethnographiques, dialecte Toubou*. Paris: E. Leroux.
- Casali, Roderic F. 2003. [ATR] value asymmetries and underlying vowel inventory structure. *Linguistic Typology* 7. 307–382.
- Casali, Roderic F. 2008. ATR harmony in African languages. *Language and Linguistics Compass* 2. 496–549.
- Clopper, Cynthia G. & Judith Tonhauser. 2011. On the prosodic coding of focus in Paraguayan Guaraní. In Mary Byram Washburn et al. (eds.), *Proceedings of the 28th West Coast Conference on Formal Linguistics*, 249–257. Somerville, MA: Cascadilla Proceedings Project.
- Coetzee, Andries W., S. Lin & Rigardt Pretorius. 2007. Post-nasal devoicing in Tswana. In J. Trouvain & W. J. Barry (eds.), *Proceedings of the XVIth International Congress of Phonetic Sciences (ICPhS XVI)*, 861–864. Saarbrücken, Germany.
- Coetzee, Andries W. & Rigardt Pretorius. 2010. Phonetically grounded phonology and sound change: The case of Tswana labial plosives. *Journal of Phonetics* 38. 404–421.
- Comrie, Bernard. 1981. *Language universals and linguistic typology*. Chicago: University of Chicago Press.
- Comrie, Bernard. 1989. *Language universals & linguistic typology*. 2nd edn. Chicago: University of Chicago Press.

- Connell, Bruce. 2011. Downstep. In Marc van Oostendorp, Colin J. Ewen, Elizabeth Hume, and Keren Rice (eds.), *The Blackwell companion to phonology*, vol. 2, 824–847. Chichester, West Sussex, United Kingdom: Blackwell Publishing.
- Creissels, Denis. 2000. Typology. In Bernd Heine & Derek Nurse (eds.), *African languages: An introduction*, 231–258. Cambridge: Cambridge University Press.
- Creissels, Denis. 2005. A typology of subject and object markers in African languages. In F. K. Erhard Voeltz (ed.), *Studies in African linguistic typology* (Typological Studies in Language 64), 43–70. Amsterdam: John Benjamins.
- Creissels, Denis. 2006/07. Buchbesprechung of Jakobi & Crass' 'Grammaire du beria (langue saharienne)' (2004). *Afrika und Übersee* 89. 276–280.
- Creissels, Denis. 2007. Remarks on split intransitivity. Paper presented at the 7th *Syntax and Semantics Conference in Paris* (7<sup>ème</sup> Colloque de Syntaxe et Sémantique à Paris), Paris, 4–6 October, 2007. [http://www.ddl.ish-lyon.cnrs.fr/fulltext/Creissels/Creissels\\_2007c.pdf](http://www.ddl.ish-lyon.cnrs.fr/fulltext/Creissels/Creissels_2007c.pdf). Accessed 17 January 2015.
- Creissels, Denis, Gerrit J. Dimmendaal, Zygmunt Frajzyngier & Christa König. 2008. Africa as a morphosyntactic area. In Bernd Heine & Derek Nurse (eds.), *A linguistic geography of Africa*, 86–150. Cambridge: Cambridge University Press.
- Croft, William. 1991. *Syntactic categories and grammatical relations: The cognitive organization of information*. Chicago: University of Chicago Press.
- Croft, William. 2000. Parts of speech as language universals and as language-particular categories. In Petra M. Vogel & Bernard Comrie (eds.), *Approaches to the typology of word classes* (Empirical Approaches to Language Typology 23), 65–102. Berlin: De Gruyter.
- Crystal, David. 2003. *A dictionary of linguistics & phonetics*. 5th edn. Oxford: Blackwell.
- Cyffer, Norbert. 1981a. Pluralization in Saharan languages. *Afrika und Übersee* 64. 161–186.
- Cyffer, Norbert. 1981b. The person elements in Saharan languages: A step towards the creation of Proto-Saharan. In Thilo C. Schadebert and M. Lionel Bender (eds.), *Nilo-Saharan: Proceedings of the first Nilo-Saharan linguistics colloquium* (Leiden, September 8–10, 1980), 185–200. Dordrecht: Foris Publications.
- Cyffer, Norbert. 1983. Case marking in Kanuri? *Afrika und Übersee* 66. 191–202.
- Cyffer, Norbert. 1991. The Zaghawa verb structure and its relation to other Saharan languages. *Proceedings of the fourth Nilo-Saharan linguistics colloquium*, 79–90. Hamburg: Helmut Buske Verlag.
- Cyffer, Norbert. 1996. Who are the ancestors of the Saharan family? In M. Lionel Bender and Thomas Hinnebusch (eds.), *6th Nilo-Saharan Linguistics Conference 1995*. *Afrikanistische Arbeitspapiere* 45. 53–63.
- Cyffer, Norbert. 1997. A survey of the Kanuri language. In Norbert Cyffer and Thomas Geider (eds.), *Advances in Kanuri scholarship* (Westafrikanische Studien 17), 17–66. Köln: Rüdiger Köppe.



- Cyffer, Norbert. 1998a. *A sketch of Kanuri*. Köln: Rüdiger Köppe.
- Cyffer, Norbert. 1998b. Basic time relations in the Saharan verbal system. In Petr Zima and Vladimir Tax (eds.), *Language and location in space and time*, 45–53. München: Lincom Europa.
- Cyffer, Norbert. 2000. Linguistic properties of the Saharan languages. In Petr Zima (ed.), *Areal and genetic factors in language classification and description: Africa south of the Sahara* (Lincom Studies in African Linguistics 47), 30–59. München: Lincom Europa.
- Cyffer, Norbert. 2007. Kanuri morphology. In Alan S. Kaye (ed.), *Morphologies of Asia and Africa*, vol. 2, 1089–1126. Winona Lake, Indiana: Eisenbrauns.
- Cyffer, Norbert. 2009. Negation patterns in Kanuri. In Norbert Cyffer, Erwin Ebermann & Georg Ziegelmeyer (eds.), *Negation patterns in West African languages and beyond*, 71–91. Amsterdam: John Benjamins.
- Dahl, Östen. 1979. Typology of sentence negation. *Linguistics* 17. 79–106.
- Dahl, Östen. 2011. Typology of negation. In Laurence R. Horn (ed.), *The expression of negation*, 9–38. Berlin: De Gruyter.
- Diessel, Holger. 1999. *Demonstratives: Form, function, and grammaticalization* (Typological Studies in Language 42). Amsterdam: John Benjamins.
- Dik, Simon C. (Kees Hengeveld, ed.). 1997. *The theory of functional grammar, Part 2: Complex and derived constructions*. Berlin: De Gruyter.
- Dimmendaal, Gerrit J. 2005. Head marking, dependent marking and constituent order in the Nilotic area. In F. K. Erhard Voeltz (ed.), *Studies in African linguistic typology* (Typological Studies in Language 64), 71–92. Amsterdam: John Benjamins.
- Dimmendaal, Gerrit J. 2008. Africa's verb-final languages. In Bernd Heine & Derek Nurse (eds.), *A linguistic geography of Africa*, 272–308. Cambridge: Cambridge University Press.
- Dimmendaal, Gerrit J. 2009a. Kanuri. In Keith Brown & Sarah Ogilvie (eds.), *Concise encyclopedia of languages of the world*, 578. Oxford: Elsevier.
- Dimmendaal, Gerrit J. 2009b. Nilo-Saharan languages. In Keith Brown & Sarah Ogilvie (eds.), *Concise encyclopedia of languages of the world*, 772–776. Oxford: Elsevier.
- Dixon, R. M. W. 1994. *Ergativity* (Cambridge Studies in Linguistics 69). Cambridge: Cambridge University Press.
- Dixon, R. M. W. 2006. Complement clauses and complementation strategies in typological perspective. In R. M. W. Dixon & Alexandra Aikhenvald (eds.), *Complementation* (Explorations in Linguistic Typology 3), 1–48. Oxford: Oxford University Press.
- Dixon, R. M. W. & Alexandra Y. Aikhenvald (eds.). 2004. *Adjective classes: A cross-linguistic typology*. New York: Oxford University Press.
- Dryer, Matthew. 1986. Primary objects, secondary objects, and antitativity. *Language* 62. 808–845.

- Dryer, Matthew. 1988. Universal of negative position. In Michael Hammond, Edith A. Moravcsik & Jessica R. Wirth (eds.), *Studies in syntactic typology*, 93–124. Amsterdam: John Benjamins.
- Dryer, Matthew. 2007a. Noun phrase structure. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 2, 151–205. Cambridge: Cambridge University Press.
- Dryer, Matthew. 2007b. Word order. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 1, 61–131. Cambridge: Cambridge University Press.
- Dryer, Matthew. 2007c. Clause types. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 1, 224–275. Cambridge: Cambridge University Press.
- Fabricius-Hansen, Cathrine & Wiebke Ramm (eds.). 2008. *'Subordination' versus 'Coordination' in sentence and text: A cross-linguistic perspective*. Amsterdam: John Benjamins.
- Fadoul, Zakaria. No date. *Structure de la langue Beria*. Paris: University of Paris, doctoral dissertation.
- Fannami, Muhammad & Mohammed Aminu Mu'azu. 2011. *An introduction to morphology and syntax of the Kanuri language* (Linguistics Edition 87). Munich: LINCOM Europa.
- Foley, William A. 2007. A typology of information packaging in the clause. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 1, 362–446. Cambridge: Cambridge University Press.
- Foley, William A. 2010. Events and serial verb constructions. In Mengistu Amberber, Brett Baker & Mark Harvey (eds.), *Complex predicates: Cross-linguistic perspectives on event structure*, 79–109. Cambridge: Cambridge University Press.
- Frajzyngier, Zygmunt. 2012. *A grammar of Wandala*. Berlin: De Gruyter.
- Fukuda, Shin. 2008. Backward control. *Language and linguistics compass* 2. 168–195. Available online: <http://www2.hawaii.edu/~fukudash/backwardcontrol.pdf>. Accessed 19 May 2015.
- Gafos, Adamantios I. & Amanda Dye. 2011. Vowel harmony: Opaque and transparent vowels. In Marc van Oostendorp, Colin J. Ewen, Elizabeth Hume & Keren Rice (eds.), *The Blackwell companion to phonology*, vol. 4, 2164–2189. Chichester, West Sussex, United Kingdom: Blackwell Publishing.
- Giannakidou, Anastasia. 2011. Negative and positive polarity items. In Klaus von Heusinger, Claudia Maienborn & Paul Portner (eds.), *Semantics: An international handbook of natural language meaning*, vol. 2, 1660–1712. Berlin: De Gruyter.
- Gick, Bryan, Douglas Pulleyblank, Fiona Campbell & Ngessimo Mutaka. 2006. Low vowels and transparency in Kinande vowel harmony. *Phonology* 23. 1–20.
- Givón, Talmy. 2001a. *Syntax: An introduction*, vol. 1. Amsterdam: John Benjamins.
- Givón, Talmy. 2001b. *Syntax: An introduction*, vol. 2. Amsterdam: John Benjamins.

- Goad, Heather. 2011. The representation of sC clusters. In Marc van Oostendorp, Colin J. Ewen, Elizabeth Hume & Keren Rice (eds.), *The Blackwell companion to phonology*, vol. 2, 898–923. Chichester, West Sussex, United Kingdom: Blackwell Publishing.
- Goldsmith, John A. 1976. Autosegmental phonology. Cambridge, MA: Massachusetts Institute of Technology, PhD dissertation.
- Goldsmith, John A. 1990. *Autosegmental & metrical phonology*. Oxford: Basil Blackwell.
- Gouskova, Maria, Elizabeth Zsiga & One Tlale Boyer. 2011. Grounded constraints and the consonants of Setswana. *Lingua* 121. 2120–2152.
- Greenberg, Joseph H. 1963. The languages of Africa. *International Journal of American Linguistics* 29.1.
- Greenberg, Joseph H. 1966. Some universals of grammar with particular reference to the order of meaningful elements. In Joseph H. Greenberg (ed.), *Universals of language*, 2nd edn., 73–113. Cambridge, MA: The M.I.T. Press.
- Greenberg, Joseph H. 1970. *The languages of Africa*. Bloomington: Indiana University.
- Gregory, Michelle L. & Laura A. Michaelis. 2001. Topicalization and left-dislocation: A functional opposition revisited. *Journal of Pragmatics* 33. 1665–1706.
- Gussenhoven, Carlos. 2004. *The phonology of tone and intonation*. Cambridge: Cambridge University Press.
- Hagège, Claude. 2010. *Adpositions*. Oxford: Oxford University Press.
- Haiman, John & Sandra A. Thompson (eds.). 1988. *Clause combining in grammar and discourse*. Amsterdam: John Benjamins.
- Hale, Kenneth L., Mary Laughren & Jane Simpson. 1995. Warlpiri syntax. In Joachim Jacobs, Armin von Stechow, Wolfgang Sternefeld & Theo Vennemann (eds.), *Syntax: Ein internationales Handbuch zeitgenössischer Forschung* (An International Handbook of Contemporary Research), 1430–1451. Berlin: De Gruyter.
- Hall, Nancy. 2011. Vowel epenthesis. In Marc van Oostendorp, Colin J. Ewen, Elizabeth Hume, and Keren Rice (eds.), *The Blackwell companion to phonology*, vol. 3, 1576–1596. Chichester, West Sussex, United Kingdom: Blackwell Publishing.
- Haspelmath, Martin. 2001. Word classes and parts of speech. In P. B. Baltes & N. J. Smelser (eds.), *International encyclopedia of the social and behavioural sciences*, 16538–16545. Amsterdam: Pergamon.
- Haspelmath, Martin. 2002. *Understanding morphology*. London & New York: Arnold & Oxford University Press.
- Haspelmath, Martin. 2004. Explaining the Ditransitive Person-Role Constraint: A usage-based approach. *Constructions* 2.
- Haspelmath, Martin. 2007a. Ditransitive alignment splits and inverse alignment. *Functions of Language* 14. 79–102.
- Haspelmath, Martin. 2007b. Coordination. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 2, 1–51. Cambridge: Cambridge University Press.

- Haspelmath, Martin. 2013. Argument indexing: A conceptual framework for the syntactic status of bound person forms. In Dik Bakker & Martin Haspelmath (eds.), *Languages across boundaries: Studies in memory of Anna Siewierska*, 197–226. Berlin: De Gruyter.
- Haspelmath, Martin. 2015. Ditransitive constructions. *Annual Review of Linguistics* 1. 19–41. Available online: <http://www.annualreviews.org/doi/pdf/10.1146/annurev-linguist-030514-125204>. Accessed 19 May 2015.
- Haspelmath, Martin. 2016. The serial verb construction: Comparative concept and cross-linguistic generalizations. *Language and Linguistics* 17.291–319.
- Haviland, John B. 1979. Guugu Yimidhirr. In R. M. W. Dixon and Barry J. Blake (eds.), *Handbook of Australian languages*, vol. 1, 27–180. Amsterdam: John Benjamins.
- Heine, Bernd. 1976. *A typology of African languages based on the order of meaningful elements* (Kölner Beiträge zur Afrikanistik 4). Berlin: Dietrich Reimer Verlag.
- Heine, Bernd. 1990. The dative in Ik and Kanuri. In William Croft, Keith Denning & Suzanne Kemmer (eds.), *Studies in typology and diachrony: Papers presented to Joseph H. Greenberg on his 75th birthday* (Typological Studies in Language 20), 129–149. Amsterdam: John Benjamins.
- Heine, Bernd. 1997. *Possession: Cognitive sources, forces, and grammaticalization* (Cambridge Studies in Linguistics 83). Cambridge: Cambridge University Press.
- Higgins, Roger Francis. 1979. *The pseudo-cleft construction in English*. New York: Garland.
- Hoeksema, Jack. 2011. Negative and positive polarity items: An investigation of the interplay of lexical meaning and global conditions on expression. In Laurence R. Horn (ed.), *The expression of negation*, 187–224. Berlin: De Gruyter.
- Hombert, Jean-Marie. 1974. Universals of downdrift: Their phonetic basis and significance for a theory of tone. In *Papers from the fifth conference on African linguistics, Stanford University, March 29–31, 1974*, 169–183.
- Hopper, Paul J. & Sandra A. Thompson. 1980. Transitivity in grammar and discourse. *Language* 56. 251–299.
- Horie, Kaoru & Bernard Comrie. 2000. Introduction. In Kaoru Horie (ed.), *Complementation* (Converging Evidence in Language and Communicational Research 1), 1–10. Amsterdam: John Benjamins.
- Horn, Laurence R. 2001[1989]. *A natural history of negation*. Stanford: CSLI [Center for the Study of Language and Information] Publications.
- Hulst, Harry van der. 2011. Pitch accent systems. In Marc van Oostendorp, Colin J. Ewen, Elizabeth Hume & Keren Rice (eds.), *The Blackwell companion to phonology*, vol. 2, 1003–1026. Chichester, West Sussex, United Kingdom: Blackwell Publishing.
- Hulst, Harry van der and Jeroen van de Weijer. 1995. Vowel harmony. In John H. Goldsmith (ed.), *The handbook of phonological theory*, 495–534. Oxford: Blackwell.

- Hutchison, John P. 1981. *The Kanuri language: A reference grammar*. Madison: University of Wisconsin.
- Hutchison, John P. 1986. Major constituent case marking in Kanuri. In Gerrit J. Dimmendaal (ed.), *Current approaches to African linguistics* (Publications in African Languages and Linguistics 6), vol. 3, 191–208. Dordrecht, Holland: Foris Publications.
- Hyman, Larry M. 2001. The limits of phonetic determinism in phonology: \*NC revisited. In Elizabeth Hume & Keith Johnson (eds.), *The role of speech perception in phonology*, 141–185. New York: Academic Press.
- Hyman, Larry M. 2006. Word-prosodic typology. *Phonology* 23, 225–257.
- Hyman, Larry M. 2009. How (not) to do phonological typology: The case of pitch-accent. *Language Sciences* 31, 213–238.
- Hyman, Larry M. 2011. *The representation of tone*. In Marc van Oostendorp, Colin J. Ewen, Elizabeth Hume & Keren Rice (eds.), *The Blackwell companion to phonology*, vol. 2, 1078–1102. Chichester, West Sussex, United Kingdom: Blackwell Publishing.
- Iggesen, Oliver A. 2011. Asymmetry in case marking: Nominal vs. pronominal systems. In Andrej Malchukov & Andrew Spencer (eds.), *The Oxford handbook of case*, 246–257. Oxford: Oxford University Press.
- Jakobi, Angelika. 2006. Focus in an active/agentive alignment system—the case of Beria (Saharan). *Zentrum für Allgemeine Sprachwissenschaft: Papers in Linguistics* 46, 129–142.
- Jakobi, Angelika. 2011. Split-S in Beria. In Doris Löhr, Eva Rothmaler & Georg Ziegelmeyer (eds.), *Kanuri, Borno and beyond: Current studies on the Lake Chad region*, 91–116. Köln: Rüdiger Köppe.
- Jakobi, Angelika & Joachim Crass. 2004. *Grammaire du beria (langue saharienne)*. Köln: Rüdiger Köppe.
- Jarrett, Kevin A. 1981. The development of the Kanuri aspect system within Western Saharan. In Thilo C. Schadebert & M. Lionel Bender (eds.), *Nilo-Saharan: Proceedings of the first Nilo-Saharan linguistics colloquium (Leiden, September 8–10, 1980)*, 201–215. Dordrecht: Foris Publications.
- Jarrett, Kevin A. 1988. Dialectes et alphabétisation dans les écoles (Kanuri du Niger). *Journal of West African Languages* 18, 105–124.
- Jourdan, Paul Édouard Antoine Alfred. 1935. *Notes grammaticales et vocabulaire de la langue daza*. London: Kegan Paul, Trench, Trubner & Co., Ltd.
- Kearns, Kate. 2000. *Semantics*. New York: St. Martin's Press.
- Keenan, Edward L. 1985. Relative clauses. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 2, 141–170. Cambridge: Cambridge University Press.
- Keenan, Edward L. & Bernard Comrie. 1977. NP accessibility and universal grammar. *Linguistic Inquiry* 8, 63–100.

- Kellenberger, Joshua. 2008. On classifying Beria verbs. *10th Nilo-Saharan Linguistic Colloquium*, Paris 2007.
- Kim, Alan Hyun-Oak. 1988. Preverbal focusing and and type XXIII languages. In Michael Hammond, Edith A. Moravcsik & Jessica R. Wirth (eds.), *Studies in syntactic typology*, 147–169. Amsterdam: John Benjamins.
- Kinkade, M. Dale. 1983. Salish evidence against the universality of ‘noun’ and ‘verb’. *Lingua* 60. 25–40.
- Kittilä, Seppo, Katja Västi, & Jussi Ylikoski. 2011. Introduction to case, animacy and semantic roles. In Seppo Kittilä, Katja Västi & Jussi Ylikoski (eds.), *Case, animacy and semantic roles*, 1–26. Amsterdam: John Benjamins.
- Koelle, Sigismund Wilhelm. 1854. *Grammar of the Bornu or Kanuri language*. London: Church Missionary Society.
- König, Christa. 2008. *Case in Africa*. New York: Oxford University Press.
- König, Christa. 2009. !Xun. In Gerrit J. Dimmendaal (ed.), *Coding participant marking: Construction types in twelve African languages* (Studies in Language Companion Series 110), 23–53. Amsterdam: John Benjamins.
- König, Ekkehard & Peter Siemund. 2007. Speech act distinctions in grammar. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 1, 276–324. Cambridge: Cambridge University Press.
- Kroeger, Paul. 2004. *Analyzing syntax*. Cambridge: Cambridge University Press.
- Kroeger, Paul. 2005. *Analyzing grammar*. Cambridge: Cambridge University Press.
- Kroeger, Paul. 2014a. Information status and the meaning of *the*. Unpublished class notes.
- Kroeger, Paul. 2014b. Sense and reference. Unpublished class notes.
- Kroeger, Paul. 2014c. Information structure: Topic and focus. Unpublished class notes.
- Kuteva, Tania & Bernard Comrie. 2005. The typology of relative clause formation in African languages. In F. K. Erhard Voeltz (ed.), *Studies in African linguistic typology* (Typological Studies in Language 64), 209–228. Amsterdam: John Benjamins.
- Lambrecht, Knud. 1994. *Information structure and sentence form: Topic, focus, and the mental representations of discourse referents* (Cambridge Studies in Linguistics 71). Cambridge: Cambridge University Press.
- Leben, William. 1973. Suprasegmental phonology. Cambridge, MA: Massachusetts Institute of Technology, PhD dissertation.
- LeCoeur, Charles & Marguerite LeCoeur 1956. *Grammaire et textes téda-daza*. Memoires de l'IFAN 46. Dakar: Institut Français d'Afrique Noire.
- Legate, Julie Anne. 2002. *Warlpiri: Theoretical implications*. Cambridge, MA: Massachusetts Institute of Technology, PhD dissertation.
- Levin, Beth & Malka Rappaport Hovav. 2005. *Argument realization*. Cambridge: Cambridge University Press.



- Lewis, M. Paul, Gary F. Simons & Charles D. Fennig (eds.). 2015a. Dazaga. *Ethnologue: Languages of the world*. 17th edn. Dallas: SIL International. <https://www.ethnologue.com/language/dzg>. Accessed 20 April 2015.
- Lewis, M. Paul, Gary F. Simons & Charles D. Fennig (eds.). 2015b. Saharan. *Ethnologue: Languages of the world*. 17th edn. Dallas: SIL International. <https://www.ethnologue.com/subgroups/saharan-o>. Accessed 20 April 2015.
- Lewis, M. Paul, Gary F. Simons & Charles D. Fennig (eds.). 2015c. Kanuri. *Ethnologue: Languages of the world*. 17th edn. Dallas: SIL International. <https://www.ethnologue.com/subgroups/kanuri-o>. Accessed 20 April 2015.
- Löhr, Doris. 1997. Kanuri orthographies from 1854 until present. In Norbert Cyffer & Thomas Geider (eds.), *Advances in Kanuri scholarship*, 77–113. Köln: Rüdiger Köppe.
- Lukas, Johannes. 1937. *A study of the Kanuri language: Grammar and vocabulary*. London: Oxford University Press.
- Lukas, Johannes. 1953. *Die Sprache der Tubu in der zentralen Sahara*. Berlin: Akademie Verlag.
- Maddieson, Ian. 2013. Voicing and gaps in plosive systems. In Matthew S. Dryer & Martin Haspelmath (eds.), *The world atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available online at <http://wals.info/chapter/5>. Accessed on 8 April 2015.)
- Maha Abdu El-Dawi. 2010. *The morphosyntactic structure of the Zaghawa language in Sudan. Focus: The Wegi dialect*. Khartoum University, PhD dissertation.
- Malchukov, Andrej L. 2013. Alignment preferences in basic and derived ditransitives. In Dik Bakker & Martin Haspelmath (eds.), *Languages across boundaries: Studies in memory of Anna Siewierska*, 263–289. Berlin: De Gruyter.
- Malchukov, Andrej L., Martin Haspelmath & Bernard Comrie. Ditransitive constructions: a typological overview. 2010. In Andrej L. Malchukov, Martin Haspelmath & Bernard Comrie (eds.), *Studies in ditransitive constructions: A comparative handbook*, 1–64. Berlin: De Gruyter.
- Malchukov, Andrej L. & Peter de Swart. 2011. Differential case marking and actancy variations. In Andrej L. Malchukov & Andrew Spencer (eds.), *The Oxford handbook of case*, 339–355. Oxford: Oxford University Press.
- Matthews, P. H. 1974. *Morphology: An introduction to the theory of word-structure*. Cambridge: Cambridge University Press.
- McCarthy, John J. 1986. OCP effects: Gemination and antigemination. *Linguistic Inquiry* 17. 207–263.
- McGregor, William B. 1988. Mood and subordination in Kuniyanti. In Peter Austin (ed.), *Complex sentence constructions in Australian languages*, 37–68. Amsterdam: John Benjamins.
- McGregor, William B. 1992. The semantics of ergative marking in Gooniyandi. *Linguistics* 30. 275–318.

- McGregor, William B. 2009. Typology of ergativity. *Language and Linguistics Compass* 3. 480–508.
- McGregor, William B. 2010. Optional ergative case marking systems in a typological-semiotic perspective. *Lingua* 120. 1610–1636.
- McGregor, William B. 2011. *The Nyulnyul language of Dampier land, Western Australia: Volume 1: Grammar* (Pacific Linguistics 632). Canberra: Pacific Linguistics.
- McNally, Louise. 2011. Existential sentences. In Klaus von Heusinger, Claudia Maienborn & Paul Portner (eds.), *Semantics: An international handbook of natural language meaning*, vol. 2, 1829–1848. Berlin: De Gruyter.
- Meakins, Felicity & Rachel Nordlinger. 2014. *A grammar of Bilinarra: An Australian aboriginal language of the northern territory* (Pacific Linguistics 640). Berlin: De Gruyter.
- Megerdooian, Karine. 2001. Event structure and complex predicates in Persian. *Canadian Journal of Linguistics/Revue canadienne de linguistique* 46. 97–125.
- Merlan, Francesca. 1985. Split intransitivity: Functional oppositions in intransitive inflection. In Johanna Nichols & Anthony C. Woodbury (eds.), *Grammar inside and outside the clause*, 324–362. Cambridge: Cambridge University Press.
- Mikkelsen, Line. 2011. Copular clauses. In Klaus von Heusinger, Claudia Maienborn & Paul Portner (eds.), *Semantics: An international handbook of natural language meaning*, vol. 2, 1805–1829. Berlin: De Gruyter.
- Miller, Cynthia L. & Leoma G. Gilley. 2001. Evidence for ergativity in Shilluk. *Journal of African Languages and Linguistics* 22. 33–68.
- Monahan, Philip J. 2003. In G. Garding & M. Tsujimura (eds.), *WCCFL [West Coast Conference on Formal Linguistics] 22 Proceedings*, 356–369. Somerville, MA: Cascadia Press. Available online: [http://individual.utoronto.ca/pmonahan/papers/Monahan\\_2003\\_WCCFL.pdf](http://individual.utoronto.ca/pmonahan/papers/Monahan_2003_WCCFL.pdf). Accessed 19 May 2015.
- Mukarovsky, Hans G. 1981. Wo steht das Saharische? *Afrika und Übersee* 64. 187–226.
- Murray, Robert W. & Theo Vennemann. 1983. Sound change and syllable structure in Germanic phonology. *Language* 59. 514–528.
- Nachtigal, Gustav. 1879–1889. *Sahara und Sudan: Ergebnisse sechsjähriger Reisen in Afrika*. 3 vols. Berlin: Reimer, Hempel & Parey.
- Nachtigal, Gustav. 1881. *Sahâra und Sûdân*. Berlin: Weidmann.
- Noonan, Michael. 2007. Complementation. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 2, 52–150. Cambridge: Cambridge University Press.
- Ohala, John. 1983. The origin of sound patterns in vocal tract constraints. In Peter F. MacNeilage (ed.), *The production of speech*, 189–216. New York: Springer-Verlag.
- Ortman, Mark. 2000. *L'ortographe et la grammaire du tedaga*. Revised edn. Unpublished orthography statement.
- Ortman, Mark. 2003. Teda verb classes and their morphology in light of verbal paradigms. Unpublished manuscript. N'Djaména, Chad: Association SIL.



- Parker, Steve. 2011. Sonority. In Marc van Oostendorp, Colin J. Ewen, Elizabeth Hume & Keren Rice (eds.), *The Blackwell companion to phonology*, vol. 2, 1160–1184. Chichester, West Sussex, United Kingdom: Blackwell Publishing.
- Parker, Steve. 2012. Sonority distance vs. sonority dispersion—a typological survey. In Steve Parker (ed.), *The sonority controversy*, 101–165. Berlin: De Gruyter.
- Payne, John R. 1985. Negation. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 1, 197–242. Cambridge: Cambridge University Press.
- Payne, Thomas. 1997. *Describing morphosyntax: A guide for field linguists*. Cambridge: Cambridge University Press.
- Peranteau, P. M., J. N. Levi & G. C. Phares (eds.). 1972. *The Chicago which hunt*. Chicago: Chicago Linguistic Society.
- Petráček, Karel 1965. Die Phonetik, Phonologie und Morphologie der Berti (-Siga) Sprache in Dar Fur. *Archiv Orientalni* 33. 341–366.
- Petráček, Karel 1966. Die Morphologie der Berti (-Siga) Sprache in Dar Fur. *Archiv Orientalni* 34. 295–319.
- Petráček, Karel. 1987. Berti or Sagato-a (Saharan) vocabulary. *Afrika und Übersee* 70. 163–193.
- Petráček, Karel. 1988. The BER-Group of Saharan languages. *Archiv Orientalni* 56. 129–136.
- Petráček, Karel. 1989. Saharisch und Hamitosemitisch. In E. von Schular (ed.), *XXIII Deutscher Oritentalistentag vom 16 bis 20 September 1985 in Würzburg. Ausgewählte Vorträge. Supplement VII, Zeitschrift der Deutscher Morgenländischen Gesellschaft*. Stuttgart: Franz Steiner Verlag.
- Polinsky, Maria & Eric Potsdam. 2002. Backward control: Evidence from Malagasy. *MIT Working Papers in Linguistics* 44. 257–272.
- Potsdam, Eric. 2006. Backward object control in Malagasy: Against an empty category analysis. In Donald Baumer, David Montero & Michael Scanlon (eds.), *Proceedings of the 25th West Coast Conference on Formal Linguistics*, 328–336. Somerville, MA: Cascadilla Proceedings Project. Available online: <http://www.lingref.com/cpp/wccfl/25/paper1465.pdf>. Accessed 19 May 2015.
- Portner, Paul & Barbara H. Partee (eds.). 2002. *Formal semantics: The essential readings*. Oxford: Blackwell Publishing.
- Pustet, Regina. *Copulas: Universals in the categorization of the lexicon*. Oxford: Oxford University Press.
- Rauh, Gisa. 2010. *Syntactic categories: Their identification and description in linguistic theories*. Oxford: Oxford University Press.
- Rappaport Hovav, Malka & Beth Levin. 2008. The English dative alternation: The case for verb sensitivity. *Journal of Linguistics* 44. 129–167.
- Reinisch, Leo. 1873. *Der einheitliche Ursprung der Sprachen der alten Welt*. Wien: Wilhelm Braumüller.

- Riemsdijk, Henk van & Edwin Williams. 1986. *Introduction to the theory of grammar*. Cambridge, MA: The MIT Press.
- Rose, Sharon & Rachel Walker. 2011. Harmony systems. In John Goldsmith, Jason Riggall & Alan Yu (eds.), *Handbook of phonological theory*, 2nd edn., 240–290. Oxford: Wiley-Blackwell.
- Rothmaler, Eva. 2011. Can we speak of converbs in Kanuri? In Doris Löhr, Eva Rothmaler & Georg Ziegelmeyer (eds.), *Kanuri, Borno and beyond: Current studies on the Lake Chad region*, 117–136. Köln: Rüdiger Köppe.
- Roy, Isabelle. 2013. *Nonverbal predication: Copular sentences at the syntax-semantics interface* (Oxford Studies in Theoretical Linguistics 45). Oxford: Oxford University Press.
- Rude, Noel. 1983. Ergativity and the active-stative typology of Loma. *Studies in African Linguistics* 14. 265–283.
- Saeed, John I. 2009. *Semantics*. 3rd edn. Chichester, West Sussex, UK: Wiley-Blackwell.
- Sapir, Edward. 1917. Review of 'Het passieve karakter van het verbum transitivum of van het verbum actionis in talen van Noord-Amerika' by C. C. Uhlenbeck. *International Journal of American Linguistics* 1. 82–86.
- Schachter, Paul & Timothy Shopen. 2007. Parts-of-speech systems. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 1, 1–60. Cambridge: Cambridge University Press.
- Siewierska, Anna. 2004. *Person* (Cambridge Textbooks in Linguistics). Cambridge: Cambridge University Press.
- Siewierska, Anna & Dik Bakker. 2007. Bound person forms in ditransitive clauses revisited. *Functions of Language* 14. 103–125.
- Sole, Maria-Josep, Larry M. Hyman & Kemmonye C. Monaka. 2010. More on post-nasal devoicing: The case of Shekgalagari. *Journal of Phonetics* 38. 604–615.
- Staden, Miriam van & Ger P. Reesink. 2008. Serial verb constructions in a linguistic area. In Gunter Senft (ed.), *Serial verb constructions in Austronesian and Papuan languages* (Pacific Linguistics 594), 17–54. Canberra: Pacific Linguistics.
- Starwalt, Coleen Grace Anderson. 2008. The acoustic correlates of ATR harmony in seven- and nine-vowel African languages: A phonetic inquiry into phonological structure. Arlington, TX: University of Texas at Arlington, PhD dissertation. Available online: [http://www.sil.org/system/files/reapdata/61/97/69/61976982571057249474967120179627518810/C\\_Starwalt\\_Dissertation.pdf](http://www.sil.org/system/files/reapdata/61/97/69/61976982571057249474967120179627518810/C_Starwalt_Dissertation.pdf).
- Stassen, Leon. 2000. AND-languages and WITH-languages. *Linguistic Typology* 4. 1–54.
- Stassen, Leon. 2009. *Predicative possession*. Oxford: Oxford University Press.
- Stewart, John M. 1965. The typology of the Twi tone system. *Bulletin of the Institute of African Studies* 1. 1–27.

- Thompson, Sandra A., Robert E. Longacre & Shin Ja J. Hwang. 2007. Adverbial clauses. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 2, 237–300. Cambridge: Cambridge University Press.
- Trask, R. L. 1993. *A dictionary of grammatical terms in linguistics*. London: Routledge.
- Tubiana, Joseph. 1963. Note sur la langue des zaghawa. *Travaux de XXV<sup>e</sup> congrès internationale des orientalistes*, 614–619. Moscow.
- Tubiana, Marie-José. 2008. *Hommes sans voix*. Paris: Editions l'Harmattan.
- Tucker, A. N. & M. A. Bryan. 1966. The Eastern Saharan languages. In A. N. Tucker & M. A. Bryan, *Linguistic analyses: The non-Bantu languages of North-Eastern Africa*, 168–192. Oxford: Oxford University Press.
- Vicente, Luis. 2010. On the syntax of adversative coordination. *Natural Language & Linguistic Theory* 28. 381–415.
- Walters, Josiah. 2014. Relative clauses in Dazaga. *GIALens* 8.2.
- Walters, Josiah. Forthcoming. *Issues in the phonology of Dazaga*.
- Walters, Kevin L. 2013. *Phonological sketch of Dazaga (Keshirda of Niger)*. Unpublished manuscript.
- Walters, Kevin & Inouss Hagar (eds.). 2005. *Lexique tubu (dazaga)—français avec glossaire français—tubu*. Niamey, Niger: SIL International.
- Whaley, Lindsay. 2011. Syntactic typology. In Jae Jung Song (ed.), *The Oxford handbook of linguistic typology*, 465–486. Oxford: Oxford University Press.
- Wolfe, Andrew Miller. 2001. Towards a generative phonology and morphology of the dialects of Beria. Cambridge, MA: Harvard University, BA thesis.
- Wolfe, Andrew Miller & Tajeldin Abdalla Adam. 2015. *Optional ergativity and information structure in Beria*. Unpublished manuscript.
- Wolff, H. Ekkehard. 1990. Tone and the historical development of the Proto-Saharan aorist and progressive in Tubu and Kanuri. *19th West African Languages Congress, Legon, Ghana*.
- Wolff, H. Ekkehard. 1991. On Tubu tones. In M. Lionel Bender (ed.), *Proceedings of the 4th Nilo-Saharan linguistics colloquium, Bayreuth, August 2–4, 1989 (Nilo-Saharan: Linguistic Analyses and Documentation Vol. 7)*, 67–77. Hamburg: Helmut Buske Verlag.
- Wolff, H. Ekkehard. 1992. Historical properties and dynamics of the verbal system in western Saharan (Kanuri, Tubu). *Afrika und Übersee* 75. 75–109.
- Wolff, H. Ekkehard. 2011. On the origin and status of nasal vowels in ‘Tubu’. In Doris Löhr, Eva Rothmaler & Georg Ziegelmeyer (eds.), *Kanuri, Borno and beyond: Current studies on the Lake Chad region*, 173–190. Köln: Rüdiger Köppe.
- Wolff, H. Ekkehard & Soumana Hassana Alidou. 1989. Desegmentation and tone in Tubu: ‘Definite’ marking in the Daza dialect of Tasker. *Journal of West African Languages* 79. 67–73.

- Wolff, H. Ekkehard & Doris Löhr. 2006. Encoding focus in Kanuri verbal morphology: Predication focus and the 'Kanuri focus shift'. In Ines Fiedler & Anne Schwarz (eds.), *Papers on information structure in African languages*, 185–209. Berlin: Zentrum für Allgemeine Sprachwissenschaft.
- Yamamoto, Mutsumi. 1999. *Animacy and reference*. Amsterdam: John Benjamins.
- Ziegelmeyer, Georg. 2009. Negation of non-indicative mood in Hausa, Fulfulde and Kanuri. In Norber Cyffer, Erwin Ebermann & Georg Ziegelmeyer (eds.), *Negation patterns in West African languages and beyond*, 7–20. Amsterdam: John Benjamins.
- Ziegelmeyer, Georg. 2011. On argument focus in Kanuri. In Doris Löhr, Eva Rothmaler, & Georg Ziegelmeyer (eds.), *Kanuri, Borno and beyond: Current studies on the Lake Chad region*, 191–205. Köln: Rüdiger Köppe.
- Zimmer, Karl. 1964. *Affixal negation in English and other languages: An investigation of restricted productivity* (Word Monograph 5). New York: Linguistic Circle of New York.
- Zsiga, Elizabeth, Maria Gouskova & One Tlale. 2006. On the status of voiced stops in Tswana: Against \*ND. In C. Davis, A. R. Deal & Y. Zabbal (eds.), *Proceedings of the 36th annual meeting of the North East Linguistic Society (NELS)*, 721–734. Amherst, MA: Graduate Linguistics Student Association.
- Zsiga, Elizabeth, Maria Gouskova & One Tlale. 2007. *Grounded constraints and the consonants of Setswana*. Unpublished manuscript.

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